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THE MASTER FARMERS OF AMERICA AND THEIR EDUCATION

by

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CHAPTER I

THE SETTING AND PROCEDURE OF THE STUDY

1. Background

The agricultural population of the United States is estimated at more than 6,000,000 families or 27,000,000 individuals. This is by far the largest single group of persons dependent on one occupation for a living. The agricultural group has always been considered of basic importance to the general prosperity and well-being of the country. Recent developments in education and economics are making it increasingly important that certain facts be known with regard to the educational status of the farm population of our nation.

For the purpose of securing certain basic facts, a group of farmers, known as The Master Farmers of America, has been chosen for study. At present this group consists of more than 550 farmers located in twenty-eight states. The editors of twelve great American farm papers, assisted by leaders in education and agriculture, have carefully selected the farmers who constitute this group. All those chosen as Master Farmers are actually engaged in farming. They are not only outstanding men in agriculture, but they are also high types of citizens in their respective communities. This group of Master Farmers does not include all the best farmers. Many farmers of excellence have never been nominated for membership. The Master Farmers themselves have been among the first to point out that there are other farmers doing equally good work who are not in the organization. However, it is safe to say that these Master Farmers are representative of the very best men in American agricultural life to-day. To include all the best farmers, the group would be much larger, but it would probably not be more representative of the best in farm life.

The Master Farmers who are included in this study were chosen by methods similar to those used by *Prairie Farmer* of Chicago of which C. V. Gregory is the editor. Under his leadership, in 1925, the first group consisting of twenty-three men received the award of Master Farmer honors from *Prairie Farmer*. During the last four years 594 Master Farmers have been chosen in twenty-eight states.[1] The following statement from *The Master Farmers of America* (17, p. 6) gives the method of choice: "The Master Farmers were selected on the basis of the Master Farmer Score-Card which was prepared by the editorial staff of *Prairie Farmer* in the fall of 1924. This score-card was first published in the issue of the *Prairie Farmer* of January 1925, with the suggestion that it be used by farmers as a means of checking up definitely on themselves and their work.

"This score-card . . . was so favorably received that it was republished in *Prairie Farmer* June 1925, with the announcement that it would be used as the basis of selecting a limited number of outstanding farmers who would be designated as Master Farmers.

"A large number of nominations were received from farm advisers, neighbors, and others. A score-card completely filled out accompanied each nomination. About sixty of the nominees having the highest scores were visited personally by a member of *Prairie Farmer's* staff, who checked up on each man carefully, interviewing neighbors and local business men as well as the nominee himself. The reports were analyzed by the judges, the official scoring completed, and the final selections made. The judges were Dr. W. L. Burlison of the University of Illinois, S. H. Thompson, President of the American Farm Bureau Federation, and Clifford V. Gregory, editor of *Prairie Farmer*.

"The same process was followed in 1926, when fifteen awards were made, and in 1927, when thirteen awards were made. No man has been given the Master Farmer award in Illinois who has scored less than 925 points, and two have scored a full 1000 points."

In addition to the score-card most of the farm papers have work sheets or booklets in which every phase of the interests, finances, and farm activities of the nominee are definitely listed for purposes of comparison and selection in choosing Master Farmers. In Iowa (17, p. 19) each year Dr. H. C. Taylor of Northwestern University and Dr. C. L. Holmes of Iowa State College aided the editor of *Wallaces' Farmer* in making the final choice. The *Kansas Farmer* (17, p. 25) in 1927, chose fifteen Master Farmers out of 270 nominations. On this occasion the final judges were: F. D. Farrell, President of the Kansas State Agricultural College, J. C. Mohler, Secretary of the Kansas State Board of Agriculture, and Arnold Berns, President of the Kansas Live Stock Association. Each of the final eighty-nine contestants turned in complete work sheets. These were carefully analyzed on a point basis. The work sheets had been previously checked by a representative of the *Kansas Farmer,* who visited the home of each contestant. The method of selecting Master Farmers employed by these outstanding experts in agricultural education and economics, needs only explanation, it needs no defense. The ability of these outstanding judges is a guarantee that only farmers of unusual attainments were chosen.

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[1] A brief history of the Master Farmer movement is given on pages 127-129.

In most cases each farm paper has appointed Master Farmers from only one state, but there are exceptions in a number of cases. The *Progressive Farmer* has appointed those of all the southern states except Oklahoma. The *Farmer* appoints from Minnesota, the Dakotas, and Wisconsin. The *Pennsylvania Farmer* also appoints a limited number from New Jersey and Maryland. The *American Agriculturist* appoints mainly from New York, but two have been selected from New Jersey. The *Prairie Farmer* of Illinois has selected its Master Farmers from Illinois and Indiana; two, however, are from the state of Wisconsin. Seven other farm papers appoint Master Farmers from only one state each.

2. Scope of the Study

In order that a study of this nature shall be representative of the best conditions prevailing, generally, among the agricultural people of the United States, it is necessary that the individuals included be chosen from a wide range geographically. The accompanying table shows that the Master Farmers included are from twenty-six states and represent the conditions prevailing east of the Rocky Mountain region. A study of the types of farming followed by these men shows that every important branch of agriculture is included.

Since no study of the Master Farmer is complete that does not at the same time include the entire farm home as a unit, certain consideration will be given to the Master Farmer's wife and children especially with regard to education and related facts.

A complete list of the states, the number of questionnaires sent out, and the number and percentage of questionnaires returned from each state are given in Table 1. The list also gives the number and percentage of questionnaires returned from the Master Farmers' wives.

TABLE 1

MASTER FARMERS AND PERCENTAGES OF REPLIES ACCORDING TO STATES

State	Number of Master Farmers	Number of Returns	Percentage Returned	Returns, Master Farmers' Wives	Percentage of Returns
Alabama	20	13	65	11	55
Arkansas	10	7	70	7	70
Delaware	2	2	100	2	100
Georgia	24	12	50	11	45
Illinois	60	36	60	33	55
Indiana	30	24	80	24	80
Iowa	48	40	83	39	81
Kansas	24	16	67	15	62
Kentucky	9	9	100	9	100
Louisiana	8	0	0	0	0
Maryland	1	0	0	0	0
Michigan	34	20	59	19	56
Minnesota	31	22	71	18	60
Missouri	7	7	100	7	100
Mississippi	11	3	27	3	27
Nebraska	30	15	50	13	43
New Jersey	6	4	67	4	67
New York	20	19	95	19	95
North Carolina	24	5	21	5	21
North Dakota	10	5	50	4	40
Ohio	51	36	71	33	65
Oklahoma	43	41	95	41	95
Pennsylvania	19	13	69	12	63
South Carolina	15	8	53	8	53
South Dakota	2	2	100	2	100
Tennessee	11	7	64	6	55
Texas	40	20	50	17	43
Wisconsin	4	3	75	3	75
Totals	594	389	65.3	365	62

3. AIM OF THE STUDY

In making the present study no attempt is made to prove any theory in regard to success in farming. The study is not being made to discover whether or not the Master Farmer is educated. He is accepted as an educated man. It is necessary that special precaution be taken that the facts secured in this study shall not be used as representing the average American farmer as to education, income, or any other factors.

This study aims to investigate the range of activities carried on by the Master Farmer from the viewpoint of considering what training is necessary in order for him to be efficient in these activities. The questionnaire further attempts to discover not only what education has been received in a formal way from schools and colleges, but also what has been received from all other sources, such as books, magazines, farm organizations, personal research, or the experiences of other farmers.

The Master Farmers have been chosen without regard to educational, religious, or any other such qualifications. However, certain of these qualities have played a large part in the lives of these men. In an objective manner, therefore, the study attempts to discover the extent to which these qualifications or any other influences may have entered into the efficiency of the Master Farmers.

The purposes of the study may, therefore, be set forth as follows:

(1) To discover, from the activities in which the Master Farmer engages, what need there is for education of the farmer, and what type of education seems to fit him most efficiently for the solution of his problems;

(2) To consider to what extent education, as carried on in schools and outside of the schools, seems to have been a factor in the success of the Master Farmer;

(3) To discover from the study of the Master Farmer group those facts and influences that seem to be most potent in developing an American farm population that will be intelligent, successful, and happy.

4. METHOD OF PROCEDURE

The questionnaire was set up after a careful study of the score-cards used by the farm papers in selecting Master Farmers, and after a thorough investigation of all available published materials relating to the Master Farmer movement. Master Farmers, who were then visited, suggested certain changes. Other changes were suggested by leaders of education, rural education, and farm bureau work. A reconstruction of the material was then made, and the revised questionnaire was taken to seven Master Farmers for checking and criticism. After noting the difficulties of checking, certain items were eliminated entirely, others were combined, and others were modified. The resulting questionnaire is the one used in this study.

A letter was then sent to each of the twelve farm papers asking for their coöperation and requesting lists of the names of farmers to whom they had awarded the title of Master Farmer. These editors were unanimous in approving the study and sent the lists of the names and addresses of the Master Farmers appointed by them. A complete list of the farm papers with their editors is given on page 127. Personal visits were made to the homes of certain of the Master Farmers, but in the main, the facts from the group were secured by means of a questionnaire. The high percentage of returns is indicative of the interest the Master Farmers and their wives have taken in this study.

Out of a total number of 594 questionnaires sent out to the Master Farmers, 389 or 65.3 per cent of the number sent out were returned. In at least a dozen cases, and probably many more, the questionnaires were not received by the Master Farmer because of a lack of proper address or because of a change of address. In some cases vacation trips or business trips prevented the return of the questionnaire in time for the study. All percentages for this study are based on the 389 returned questionnaires, unless specifically mentioned. These percentages are, therefore, lower than if based on the exact number answering each item. The number not answering an item is always accounted for on the basis of the 389 questionnaires.

The Master Farmers' wives filled out 365 questionnaires. There are twenty-four cases in which the section for the Master Farmer's wife is not filled out. In three of these the Master Farmers are bachelors, one of these making his home with his parents and one having his sister as home-maker. There are four cases in which the wife is reported as deceased. One Master Farmer said that his wife was not interested in farming. No reason was given for not filling out the other sixteen questionnaires. The 365 questionnaires constitute sixty-two per cent of the number sent out. These 365 are used as the basis in computing all percentages in regard to the Master Farmers' wives, unless otherwise mentioned. The percentages of returns are considered sufficient for a study of this group. It would probably be difficult to receive a larger return from any other widely scattered group whose only reason for replying is that of interest in their vocation or interest in the study. The accuracy with which the questionnaires were filled out and the promptness of the returns are indications of the Master Farmers' interest both in education and in agriculture.

When the questionnaires were received each was checked for items not properly marked. For example, in Item 20, where the Master Farmer was asked to check the code number that indicated the extent of his education, at times two or more of the code numbers were checked. In all cases the check mark indicating the highest grade of attainment was used. Similarly changes were made in Item 63 in regard to the education of the Master Farmer's wife. When two breeds of cattle were raised the Master Farmer was asked to check code number (8) for more than one breed of cattle. Where he had failed to do this the proper code number was checked according to directions. These cases were few and no judgment was involved. It was necessary, in these cases, to have only one number checked for purposes of machine tabulation. In a few cases where items had been overlooked the Master Farmer had written in certain facts. These were tabulated under the proper code numbers of the questionnaire. After these corrections were made, the information was tabulated on Hollerith cards. Each card was then verified from the original questionnaire. New cards were made when errors were detected. The tabulations were then made by means of the Hollerith sorting machine and the population counter. In certain cases, as in Item 3, where numbers were involved, hand tabulation was necessary.

In a study made by Byram (4), *The Use of Judgments of Master Farmers in Constructing the Curriculum in Vocational Agriculture,* 133 Master Farmers were included. No summary of his study will be given at this time, but certain related facts will be used for comparisons. A list of other studies from which materials will be drawn for comparisons is given below: Lynd (12), *Middletown;* Rodenwold (15), *The Use of Leisure by Homemakers in a College Community;* Stewart, Rural Sociology Department, Iowa State College Study (unpublished); Wilson and Clapp (28), *Extension Results as Influenced by Various Factors.*

5. CRITICISM OF METHOD

In a study of this nature where the information desired has not yet been collected the only method possible of obtaining it is by means of a questionnaire. Editor C. V. Gregory stated that while the editors of the farm papers that had appointed Master Farmers were in possession of certain facts, these would be inadequate for the purposes of this study. Mr. Gregory further suggested that the facts desired could be secured only from the Master Farmers themselves. The questionnaire method was, therefore, the only one possible to reach these farmers located in twenty-eight states. This method is justified by Kelly (9, pp. 48-49) for securing facts of a unique nature: "If facts of a unique nature known only to specific individuals are desired, then an oral or a written questionnaire addressed to the one person knowing the facts or to the one or the few who know them is surely the only method of approach . . ."

After considering the returns from a questionnaire study such as this it is evident that certain items should be changed either for clearness or for purposes of tabulation. The following suggestions of changes are given:

Item 3

No space was made in which to indicate the number of brothers and sisters who died before an occupation was chosen. Also, from the questionnaire returns, it is evident that quite a number of sisters who were married were not included. Proposed revision: "3. Place in each of the blank spaces the number of your brothers or sisters who engaged in each of the following occupations, or married husbands who engaged in that occupation. Check under (10) the number who died before choosing an occupation."

Item 9

In certain cases this item was not clear. Proposed item: "9. Place a cross (x) before the figures that best indicate the total number of acres used in your farming operations whether owned or rented."

Item 11

For the purposes of clearness and definiteness the following is proposed: "11. Place a cross (x) before the group of figures that represent your average yearly net income for the five years (1924-1928)." The net income is the gross income less operating expenses, rents, taxes, etc. The net income includes the family living.

Code number (R) should read "(R) . . . less than $1000." The other income groups should be recorded in accordance with this change.

Item 20

A business course is always taken in addition to other educational attainment, for this reason there is an overlap because two code numbers are checked in one item. Code number (2) should, therefore, be omitted from Item 20 and be placed as a separate item of the questionnaire. The same change should be made in Item 62.

CHAPTER II

AGRICULTURAL INTERESTS OF THE MASTER FARMER

As an introduction to the study of the education and training of the Master Farmers, a summary of the facts concerning the farm activities will be given. Without these facts as a basis for the educational study, any conclusions would be valueless. Do the types of operations these men engage in require mental ability, or are they purely mechanical processes? Is thinking necessary to successful farming? Does the farmer need training during the period of adult life? Do the activities which farmers perform place them on a level with laborers in the factory, or the operators of machines? Can the activities demanded of them be performed efficiently by individuals of low intelligence and low levels of education? Can the farmer be successful with only local views, or must he think in terms of world problems and outlook? In this chapter, consideration will be made of facts that will give information regarding such questions as these. These facts will concern the Master Farmer's age, the years of experience in farming as a farm hand, as a renter, and as a farm owner; the types of farming followed; the kinds of farm crops or livestock raised which make up the major or minor interests of the farmer; types of unusual crops raised; special soil fertility practices; quality of production and marketing practices that bring unusual income returns to the Master Farmer.

1. Age of Master Farmers

As shown by the figures in Table 2, the ability to farm well and efficiently probably belongs to men of quite mature judgment. Age is at least one factor, whatever others may be involved.

TABLE 2

AGE OF MASTER FARMERS

Age	Number of Master Farmers	Percentage
30 years or less	1	0.3
31-40 years	39	10.0
41-50 years	121	31.1
51-60 years	140	36.0
61 years or more	86	22.1
Not answering	2	0.5
Totals	389	100.0

Average age 52 years
Median age 53.3 years

The average age for the entire group is fifty-two years. The smaller percentages in the age groups below forty years at once attract attention. The largest number consisting of thirty-six per cent of the group is found between the ages of fifty-one and sixty years. The second largest or 31.2 per cent is found at the age level of forty-one to fifty years. The age group of sixty-one years or above contains eighty-six individuals or 22.1 per cent of the number. Since the Master Farmers were not chosen prior to 1925, many of the men had no opportunity to be chosen until they reached the present age level. However, if younger men are as efficient as or more efficient farmers than older men, why are not more included in the group? It is significant that less than eleven per cent of the group are under forty years of age. The mature age of the Master Farmers may be explained in part by the fact that many of them have been farm hands and renters on farms for a number of years previous to becoming farm owners.

2. Experience as Farm Hand and Renter

Before farming for themselves thirty-nine per cent or 152 of the group had worked as farm hands for periods of time ranging from one year to more than eleven years. Table 3 gives the number and percentages who answered Item 39 of the questionnaire in regard to years of service as a farm hand.

TABLE 3

THE NUMBER OF YEARS THE MASTER FARMERS SERVED AS FARM HANDS

Years as farm hand	Number	Percentage
None	237	61.2
1-2 years	61	15.7
3-5 years	54	13.9
6-10 years	24	6.2
11 or more years	13	3.3
Totals	389	100.3
Average	4.5 years	
Median	3.4 years	

Some of these Master Farmers who worked as farm hands and others of the group operated farms as renters for a number of years. The average number of years that the 196 farmers or 51.3 per cent of the entire group rented land was 8.9 years or nearly nine years. These two items show that slow progress was made toward farm ownership by way of being, first, a hired hand, second, a renter, and last, a farm owner. The total number of Master Farmers who rented farms and the number of years they rented are given in Table 4.

TABLE 4

NUMBER OF YEARS THE MASTER FARMERS RENTED FARMS

Years as a renter	Number	Percentage
None	193	49.6
1-2 years	35	9.0
3-5 years	57	14.7
6-10 years	51	13.1
11 years or more	53	13.6
Totals	389	100.0

In arriving at the average number of years only eleven is figured for the last group. There are nine of the entire group of Master Farmers who rent all their land. In addition to these nine, there are fifty-one or 13.1 per cent of the entire group who are farming in some form of partnership. These are usually partnerships of father and son, or of brothers.

3. Previous Occupations

Previous to entering farming sixty-eight or 17.5 per cent of the group had been school teachers. Only seventeen of these, however, had been teachers long enough to call it a change of vocation, when they entered farming. Including the seventeen who were teachers, a total of fifty-six or 14.4 per cent of the Master Farmers engaged in some other occupation and changed to farming. The other occupations are given as follows: county agents, 5; merchants, 4; clerk and salesman, 5; lumbering, 2; one had followed each of the following: miner, street car motorman, Y. M. C. A. secretary, minister, veterinary, physician, brick mason, stone mason, State Boys' Club leader, banker, grain dealer, locomotive fireman, mine brakeman, employee in a railroad shop, locomotive engineer, blacksmith, farm superintendent, tanner, sawmill laborer, pottery salesman, teamster, railroad contractor, and cemetery caretaker.

4. Acreage of Farms Operated

The farm acreage tilled by the Master Farmers is larger than that tilled by the average farmer. The entire acreages are given in Table 5. The average acreage for the entire group is 506. These figures although correct are not representative of the sizes of farms operated by most of the Master Farmers. When the acreage of the fifty-three farms which contain more than 700 acres each is subtracted from the total acreage, the average for all other farms is 286 acres. The very

TABLE 5

SIZE OF FARMS OPERATED BY MASTER FARMERS

Acreages	Number of farms	Percentage of farms
Less than 30 acres	2	0.5
31-60 acres	7	1.8
61-100 acres	14	3.5
101-140 acres	32	8.2
141-200 acres	64	16.5
201-280 acres	78	20.1
281-450 acres	86	22.1
451-700 acres	52	13.3
701-1000 acres	19	4.8
1001-2000 acres	24	6.2
2001-6000 acres	8	2.1
More than 6000 acres	2	0.5
Not answering	1	0.3
Totals	389	99.9

25th percentile is 180 acres.
50th percentile is 277 acres.
75th percentile is 486 acres.
Average of all farms is 506 acres.

TABLE 6

LAND RENTED BY MASTER FARMERS

Number of renters	Acres rented
23	30-60
25	61-100
15	101-140
23	141-200
13	201-280
14	281-450
6	451-700
4	701-1000
2	1001-2000
125	

Average land rented by each renter is 214 acres.

Average land rented for the entire 388 Master Farmers is sixty-nine acres.

few large farms reported increase the average of all farms very much. The farms of eighty-six Master Farmers contain from 281 to 450 acres each. Of the 388 farms reported, 283 are of this size or smaller. There are 119 farms or thirty per cent that have less than 200 acres each. The average size of all farms in the United States (19, p. 1066) is 145 acres. The average acreage farmed by Master Farmers is therefore greater than is farmed by the average farmer. There are 125 individuals who rent an average of 214 acres each, which is usually only a part of the land they farm.

There are nine who rent all the land they operate. Two farmers rent more than 1000 acres each. Twelve men rent an average of 787 acres each. There are 113 of these men who rent less than 450 acres each. The average land rented by each of these 113 Master Farmers is 150 acres. For the 388 Master Farmers reporting, the average land rented is sixty-nine acres each. Since the average amount of land farmed by Master Farmers is 506 acres, the average land owned by each is 437 acres. The number of renters and the land rented are given in Table 6.

A Comparison of Acreage Operated by Master Farmers in Northern and Southern States

The farms of Master Farmers living in the northern states are generally smaller than those of Master Farmers living in the southern states. Table 7 shows this in a comparative manner. The average acreage for all northern farms is 404; the average for all southern farms

TABLE 7

COMPARISON OF ACREAGES OF NORTHERN AND SOUTHERN FARMERS

Size of Farms	Northern States		Southern States*	
	Number	Percentage	Number	Percentage
30 acres or less	2	0.8	0	
31-60 acres	6	2.3	1	0.8
61-100 acres	10	3.8	4	3.2
101-140 acres	27	10.2	5	4.0
141-200 acres	48	18.2	16	12.8
201-280 acres	60	22.7	18	14.4
281-450 acres	59	22.3	27	21.6
451-700 acres	27	10.2	25	20.0
701-1000 acres	10	3.8	9	7.2
1001-2000 acres	8	3.0	16	12.8
2001-6000 acres	5	2.0	3	2.4
6000 acres or more	2	0.8	0	
Not answered			1	0.8
Totals	264	100.1	125	100.0
Average acreage	404		612	
Median acreage	244		522	

is 612. The median farm in the northern states contains 244 acres while the median farm in the southern states contains 522 acres. When the fifteen farms containing more than 1000 acres each are excluded, the average acreage of the other 249 northern farms is 248. When the nineteen southern farms containing more than 1000 acres each are excluded, the average size of the remaining 105 farms is 380 acres each.

5. Generations of Farm Ownership

The majority of the homes of the Master Farmers have not been in the possession of members of their own families longer than the present generation. This is the case of 208 or 53.5 per cent of the Master Farmers. In 101 cases or twenty-six per cent the farms have been in the family ownership two generations. Forty-three or 11.1 per cent held ownership for three generations, and in two cases for four generations. Two farms were in the family for five generations, and in six cases the farms were in the family for six generations.

6. Years Engaged in Farming

Table 8 gives the number of years that the Master Farmers have been engaged in farming.

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*Tennessee and Kentucky are included with the southern states, Missouri and Kansas with the northern states.

TABLE 8

NUMBER OF YEARS MASTER FARMERS HAVE FARMED

The number of years	The number of farmers	Percentage
10 years or less	7	1.8
11-20 years	76	19.5
21-30 years	130	33.4
31-40 years	108	27.8
41-50 years	49	12.9
51-60 years	19	4.8
Total	389	100.2

Average 29.4 years.
Median 29.5 years.

7. The Length of Working Day

The length of the working day of the Master Farmer is determined largely by his own industry or energy. His day may be long or short. No organization sets the limit of his hours of work. Table 9 shows the number of hours of labor spent daily by the Master Farmer. The average amount of time spent daily by the 368 Master Farmers who checked this item is 11 hours and 20 minutes. Twenty-five per cent spend less than 10 hours and 30 minutes. Fifty per cent spend less than 12 hours and 5 minutes, and twenty-five per cent spend more than 12 hours and 51 minutes. By far the largest group, consisting of 117 or 30.1 per cent of the farmers spend twelve hours daily. Only fifty-nine or 15.1 per cent spend nine hours or less daily in farm labor. The leisure activities that are carried on must be done outside of these working hours. It is interesting to compare this working day of the Master Farmer with the working day of laborers of other vocations. In certain vocations the day is eight hours, in others it is ten hours. The average Master Farmer's working day is fifty per cent longer than the eight hour working day and twenty per cent longer than the ten hour day. Some farmers carry on their farm work only at certain seasons of the year. The other months are known as lax months. Only thirty-two or 8.6 per cent of the Master Farmers had lax seasons. The work was distributed regularly throughout the year for 321 or 82.5 per cent of the farmers. Thirty-six or 9.2 per cent did not check this item.

8. Types of Farming Followed

The Master Farmers follow almost every type of farming from the most common to the very unusual. Among the livestock interests a large number have indicated hog raising as a major source of income. This group of Master Farmers numbers 172 or 44.3 per cent of the entire group. There are in addition to this number, 104 who have checked hog raising as a minor interest. This makes a total of 276 or 71.0 per cent of all the farmers who raise this type of livestock. The second major livestock industry is dairying. This is followed by 133 or 34.1 per cent of the entire group. Dairying was also checked by 102 farmers as a minor. The number following dairying as a major or a minor source of income is 235 or 60.4 per cent of all the farmers. The feeding of beef cattle is third as a major source of income and is followed by 105 farmers. The number, however, mentioning this item as a minor is only fifty-four. A total of 159 individuals or 40.9 per cent of the entire group are interested in beef raising either as a major or a minor farm work.

TABLE 9

LENGTH OF THE MASTER FARMER'S WORKING DAY

The number of hours spent daily in farm labor	The number of Master Farmers	Percentage
6-8 hours	27	6.9
8-9 hours	32	8.2
10 hours	75	19.3
11 hours	40	10.3
12 hours	117	30.1
13 hours	31	7.9
14 hours	35	9.0
15 hours	6	1.5
16 hours	5	1.2
Not answering	21	5.5
Total	389	99.9

Although poultry raising was indicated by only sixty-six farmers as a major source of income, yet 216 additional individuals made it a minor interest. The total for poultry raising is 282 farmers or 72.5 per cent of the entire group.

Only nine or 2.3 per cent of the Master Farmers received a major income from horse breeding. An additional forty-two received a minor income from this source. Table 10 shows the number of Master Farmers engaged in livestock as a major or a minor source of income.

Twenty-seven Master Farmers rely on sheep raising for a large part of their income. A number of these men specialize in sheep to the extent that all other farm interests are directed toward this phase of livestock development. One Nebraska farmer feeds over 3000 lambs. Another Master Farmer keeps 1000 head of sheep. A number of others make a business of breeding the finest types of merino sheep.

There are perhaps no finer cattle in the United States than those belonging to the herds of the Master Farmer. Of those Master Farmers in dairying as a business, seventy-three have herds of Holstein Friesian cattle, averaging forty cattle to the herd; thirty-two have Guernsey cattle averaging thirty-seven to the herd; seventy-four keep Jersey cattle, averaging thirty to the herd; seventeen have milking Shorthorn cattle, averaging forty-six to the herd; there are two herds of Ayrshires with sixty-two cattle each. The average size of the 198 dairy herds is thirty-seven.

Among the beef cattle, there are eight herds of Angus averaging sixty-two cattle to the herd; three Shorthorn herds averaging sixty-five cattle each; twenty-six herds of Herefords averaging ninety-six cattle each. There are other herds which are composed of more than one breed of cattle. Many of these are purebred but contain two breeds, and were therefore checked under the item named mixed or several breeds. The average number of cattle for the 354 Master Farmers having cattle is forty-five. More than fifty-six per cent or 198 of these herds are purebreds. Tuberculosis testing had been carried on in 277 or seventy-eight per cent of the herds.

While 302 or 77.7 per cent of the Master Farmers checked the item on hog raising, only seventy-one per cent raised sufficiently large numbers to call it either a major or minor source of income.

While there are 283 Master Farmers who reported poultry as a major or a minor source of income, 337 indicated that they raised poultry. There are fifty-two farmers who do not raise poultry. There are four who keep flocks of more than 2000. Six farmers keep an average of 1500 birds each year, and sixteen keep from 500 to 1000 yearly. The greatest number of Master Farmers or 112 which is 23.3 per cent of the entire group keep from seventy-six to 150 birds each year. There were twenty-nine of these men who make a business of raising baby chicks. The average number of poultry kept by the 337 Master Farmers is 240. One of the highest net incomes is found among the poultrymen. No other line of farming interests so many Master Farmers.

While many of the Master Farmers are interested in livestock production because of its relation to income and soil fertility, yet a large

TABLE 10

MASTER FARMERS WITH LIVE STOCK INTERESTS

	Hog raising		Dairying		Beef cattle		Poultry raising		Sheep raising		Horse breeding	
	No.	Per.	No.	Per.	No.	Per.	No.	Per.	No.	Per.	No.	Per.
Major income	172	44.2	133	34.1	105	27.0	66	17.0	27	6.9	9	2.3
Minor income	104	26.7	102	26.3	54	13.9	216	55.2	69	17.7	42	10.8
Totals	276	70.9	235	60.4	159	40.9	282	72.2	96	24.6	51	13.1

TABLE 11

FIELD CROPS GROWN BY THE MASTER FARMERS

	Corn		Oats		Wheat		Cotton		Legumes		Sugar Cane		Lespezeda	
	No.	Per.	No.	Per.	No.	Per.	No.	Per.	No.	Per.	No.	Per.	No.	Per.
Major source of income	158	42.0	29	7.5	89	22.9	50	12.9	48	12.3	0	0.0	2	0.5
Minor source of income	166	42.6	206	52.9	115	29.6	22	5.7	144	37.0	8	2.1	13	3.3
Total	324	826	235	60.4	204	52.5	72	18.6	192	49.3	8	2.1	15	3.8

number are interested in grain crops as a source of cash income. Other farmers are interested in grain crops only as they are valuable for livestock feeding. Table 11 shows the general farm crops listed as a major or minor source of income. It also shows the number of Master Farmers and the percentages of the whole group raising each crop.

Table 14 shows that when the Master Farmers started farming the average yearly yield of corn on 299 farms was thirty-five bushels per acre. The present yield from all these farms located in twenty-eight states is slightly more than fifty-three bushels to the acre. There are three Master Farmers who averaged from ninety-one to one hundred bushels of corn per acre; eleven averaged from eighty-one to ninety bushels; twenty-three averaged from seventy-one to eighty bushels; and sixty-four averaged from sixty-one to seventy bushels. There are sixty-two farmers whose yield was from thirty-one to forty bushels, but consideration must be made that many of these farmers lived in states not included in the real corn belt. The fifty-three bushel average is still 25.6 bushels above the United States (19, p. 706) average for 1926, 1927, 1928 which was 27.6 bushels per acre.

TABLE 14

CORN YIELDS OF MASTER FARMERS

AVERAGE CORN YIELD

When the Farmer Started Farming

Number of Master Farmers	Average bushels per acre
117	30 or less
85	31-40
65	41-50
32	51-80
Total 299	Average yield 35

Present Average Corn Yield

Number of Master Farmers	Average bushels per acre
62	31-40
74	41-50
65	51-60
64	61-70
23	71-80
11	81-90
3	91-100
Total 302	Average yield 53

The average wheat yield of the Master Farmers, as shown in Table 15 was nineteen bushels when they started farming. The present wheat average is twenty-nine bushels per acre. The average wheat yield of the United States (19, p. 677) for the years of 1926, 1927, 1928 is fifteen bushels per acre.

TABLE 15

WHEAT YIELD OF MASTER FARMERS

Yield on Farm when Starting

Number of farmers	Bushels per acre
121	10-20
62	21-30
4	31-40
0	41-50
Total 187	Average yield 19 bushels

Present Crop Yield

Number of farmers	Bushels per acre
120	20-30
60	31-40
5	41-50
0	51-60
Total 185	Average yield 29 bushels

Of seventy-two cotton growers, only twenty-two grow it for the purpose of a major income. Many of these men who formerly depended on cotton now grow it only as a minor crop. A number of these farmers in reporting the acre yield in pounds of lint, indicated a severe loss because of the boll weevil. The average yield of all the cotton growers was 447 pounds per acre, when they started farming. The present yield is 748 pounds per acre.

TABLE 16

SPECIAL MARKET CROPS GROWN BY MASTER FARMERS

	Potatoes		Sweet Potatoes		Peanuts		Truck Crops		Sugar Beets	
	No.	Per.	No.	Per.	No.	Per.	No.	Per.	No.	Per.
Major income	23	5.9	4	1.1	6	1.5	32	8.2	3	0.8
Minor income	67	17.3	22	5.7	11	2.8	36	9.4	0	0.0
Total	90	23.2	26	6.8	17	4.3	68	17.6	3	0.8

The average cotton yield in the United States (19, p. 840) for the years 1926, 1927, and 1928 is 163.3 pounds per acre. The average yield of the Master Farmers is 358 per cent above the average of all cotton farmers.

Many different types of crops are raised by Master Farmers and grown for special markets. Table 16 shows the range of these crops and the number of Master Farmers engaged in growing each of them as a major or a minor source of income.

The returns show that fifty-five Master Farmers grow apples. About half of them make apples a major crop. One Ohio Master Farmer has 12,000 apple trees. An apple grower in Missouri has 211 acres planted to apples. Other farmers in Ohio, Michigan, Kentucky, Georgia, Pennsylvania, and New York have twenty-five to 150 acres of apples and peaches now bearing fruit. One Indiana farmer raises annually from 5000 to 27,000 bushels of peaches and from 15,000 to 50,000 bushels of apples. In one season this Master Farmer has marketed seventy-two carloads of peaches. Grapes are grown by thirty-one farmers, for six of whom they are a major crop. The larger grape acreages consist of from twenty to thirty acres each, and are found in Ohio, Pennsylvania, and Missouri. Truck crops of one kind or another are grown by thirty-eight Master Farmers. These acreages range from one-half an acre to thirty-five or forty acres each. Thirteen farmers raise tomatoes, and twenty raise watermelons. One Michigan farmer raises forty acres of beans. A total of ninety farmers grow potatoes for commercial purposes. Of this number twenty-three make a specialty of potatoes. One Ohio farmer raises annually 250 acres of potatoes, 150 acres of which average 350 bushels per acre. One acre yielded him 606 bushels which gave him the state championship in the production of potatoes. One Nebraska farmer raises an average of 100 acres yearly. Eight Master Farmers indicated that they grow tobacco. Sweet potatoes are grown by twenty-six farmers, four of whom grow them as a major crop. One Oklahoma farmer raises annually 100 acres of sweet potatoes. A Georgia farmer raises seventy-five acres of pecans. One Texas farmer has specialized in citrus fruits, and two others grow some of them. Two Master Farmers raise turkeys for commercial purposes. Two farmers have apiaries and several others keep bees as a hobby. One of the very unusual productions is that of growing mushrooms for market. This unusual crop is produced by a Pennsylvania farmer who also specializes in peonies and truck crops. One Texas farmer has 200 acres of fig trees.

There are undoubtedly other important crops grown which the questionnaire did not bring out. In all the lines of farming mentioned these Master Farmers are doing unusual things. New discoveries of science and research are applied to the lines of their interests.

The Master Farmer is not satisfied with doing his farming as the average farmer. He is not satisfied with the quantity ordinarily raised, with the quality ordinarily grown, nor with the price received by the average farmer. In many cases he looks for new crops or types of production not ordinarily raised by farmers. By these methods he seeks to increase his income. Generally, soil fertility is becoming depleted and lands have become less productive with years of farming. The Master Farmer has increased the productivity of his soil, in the case of corn from an average of thirty-five bushels per acre to an average of fifty-three bushels. The average corn production per acre of the United States is 27.6 bushels. The Master Farmers' production is fifty-three bushels per acre or ninety-two per cent above the average corn yield in the United States. In the case of wheat the increase is from an average of nineteen bushels when he started farming to an average of twenty-nine bushels per acre at present. The average acre production of wheat for the United States in the years 1926, 1927, 1928 was fifteen bushels. The Master Farmers' wheat production is, therefore, fourteen bushels more or 93.3 per cent higher than that of the average wheat farmer of the United States. Besides raising livestock, the Master Farmer is doing much to bring about increased soil fertility. Table 18 shows the number and percentage of farmers following certain soil fertility practices.

The quality of livestock as well as that of grains is such that special prices are received for it. Of the 354 farmers raising cattle 198 or fifty-six per cent raise all or nearly all purebred. Among the average farmers, the percentage is probably much smaller. Special prices are received by 149 of these men who sell cattle for breeding purposes. It is probable that about the same percentage will be found among those raising sheep, hogs, poultry, and horses. In many instances these men make a business of developing the best strains of livestock. Special prices were received by 141 individuals for producing high quality eggs sold either for breeding purposes or to high class trade at a marginal price. In the case of corn, forty-eight of the 304 farmers or sixteen per cent make a specialty of growing corn of special quality for seed purposes. Among the wheat growers forty-one or 21.4

per cent of the 196 produce grain of special quality that is sold for seed purposes. In other lines as well, high quality production is one of the aims of the Master Farmer.

9. SOIL FERTILITY PRACTICES

TABLE 18

SOIL FERTILITY PRACTICES OF MASTER FARMERS

	Number of farmers	Percentage
Commercial fertilizer	232	59.6
Use of lime	217	55.9
Barnyard manure	355	87.0
Green manures	210	54.0
Red clover	178	45.8
Alfalfa	237	60.9
Sweet clover	209	53.8
Soy beans	158	42.0
Lespezeda	44	11.3
Other practices	43	11.1
Total	1883	

Each Master Farmer averages five soil fertility practices.

10. THE SOLUTION OF THE FARM PROBLEM

There are differences of opinion as to just how valuable the ideas or opinions of any one person or any group of persons may be in regard to the best solution of the economic situation confronting the American farmer. It is assumed that the opinions of men successful in that occupation would at least make a valuable contribution to the best thought available. Various viewpoints are expressed. One Nebraska Master Farmer says that he does the opposite of other farmers and makes money. An Iowa Master Farmer says that he could not make any money if he did as his neighbors do. A Texas farmer says that farmer-owned coöperatives and surplus control ought to go together, but better trained farmers are needed to make that possible. A complete summary of the methods favored by the Master Farmers is given in Table 19. Each farmer was asked to check the two items that he thought would be most helpful.

TABLE 19

THE MOST IMPORTANT METHODS OF SOLVING THE FARM PROBLEM

Methods	Number of Master Farmers	Percentages
Farmer-owned coöperatives	170	43.7
Government legislation	39	10.0
Better trained farmers	224	57.6
Surplus control	116	29.8
Corporation farming	17	4.4
The tariff	40	10.3
Economical production	163	43.2

The items in order of preference are, better trained farmers, farmer-owned coöperatives, more economical production and surplus control. Government legislation affecting prices directly finds small favor, and the tariff as a real source of the relief needed, was checked by only forty farmers. Corporation farming was named by only seventeen Master Farmers. Many farmers, on the other hand, have stated that corporation farming, if it comes, will destroy all real rural life. One Master Farmer says that if the present Federal Farm Board fails to assist in taking care of the surplus to any advantage, the farmers themselves must perfect plans to control production and marketing.

CHAPTER III

THE FINANCIAL INTERESTS OF THE MASTER FARMER

The previous chapter has shown the agricultural activities in which the Master Farmer engages. This chapter will consider the finances of the Master Farmer in relation to his success in farming and in relation to his need for business training. The net income, the gross income, the present farm investment, and certain related facts will be given. These facts will help to indicate whether a relationship exists between the wealth the Master Farmer possessed at starting and his present net income or between the amount of wealth inherited and the present net income. Is there a relationship existing between the number of children in the family and the amount of wealth inherited? Does the net return show a relationship to the farm investment? What type of ability and training is necessary to handle efficiently the funds invested in the farm plant? Certain other facts as they exist in the group of Master Farmers studied will be presented.

1. The Net Incomes of Master Farmers

In regard to net income, fifty-one of the 389 Master Farmers did not check the item. Several stated that they did not have the facts necessary for answering. Two stated that their returns were less than the lowest figures given. One replied that he had not made any money since the World War. Caution is necessary that the net incomes of Master Farmers are not interpreted to represent those of farmers generally. These men receive financial returns far above those received by the average farmer. However, when compared with the incomes-returns of the most successful men in other vocations, these are low. The net incomes of the 338 who replied to this item are shown in Table 20.

Evidence is not available concerning the methods used by all the Master Farmers in keeping records. There were 203 or 52.2 per cent who replied that they kept yearly invoice records and additional rec-

TABLE 20

THE AVERAGE YEARLY NET INCOMES OF MASTER FARMERS (1924-28)

Amounts of income	Number of Master Farmers	Percentages
$1000-2000	62	15.9
2001-3000	95	24.5
3001-4000	66	17.0
4001-5000	54	13.9
5001-6000	26	6.7
6001-7000	12	3.0
7001-8000	6	1.5
8001-10000	7	1.8
10001-15000	6	1.5
15001-20000	3	.8
20001-25000	1	.3
Not answered	51	13.1
Total	389	100.0

Average* net income—$3752.37.

First quartile	2236.
Second quartile	3181.
Third quartile	4568.

ords of receipts and expenditures. Complete systems of farm records are kept by 193 or 49.6 per cent of the Master Farmers who usually secure the record forms from their state universities or agricultural colleges. Many of the farmers are as careful in keeping records as they are in other farm activities.

2. THE GROSS INCOME OF MASTER FARMERS (1924-28)

The average yearly gross income of Master Farmers is shown in Table 21. These figures cover the period of 1924-1928, and are interpreted as the gross receipts received from the sale of products of the farm. Forty-nine of the Master Farmers did not reply to this item. The average income is $11,567.

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*The midpoint was used in figuring the average.

TABLE 21

THE GROSS INCOME OF MASTER FARMERS

Gross Income	Number of Master Farmers		Percentages
$3,000 or less	10		2.6
3,001-5000	55		14.1
5,001-7000	75		19.3
7,001-10,000	83		21.3
10,001-15,000	41		10.2
15,001-20,000	30		7.7
20,001-25,000	19		4.8
25,001-30,000	6		1.5
30,001-40,000	11		2.8
40,001-50,000	3		.8
50,001 or more	7		1.8
Not answered	49		12.8
Total	389		99.7
Average		$11,567.00	
First quartile		5,532.00	
Second quartile		8,119.00	
Third quartile		14,891.00	

3. Money and Property Possessed by the Master Farmer When He Started Farming

Table 22 (which is omitted from this publication) shows the amount of money possessed by the Master Farmer in relation to his net income. This table shows that sixty-nine or 17.7 per cent of them had nothing except credit on which to borrow money when they started farming. Others had nothing but debts. One of the most successful men, financially, borrowed the money with which to purchase nineteen hens when he started in poultry farming. There were an additional 159 or 42.3 per cent who had less than $500 each or an average of $250 each. A group composed of fifty-two or 13.3 per cent had between $500 and $1000 each. These three groups comprising 280 or seventy-two per cent of the entire group had debts, nothing, or less than $1000 when they started in farming. In other words, the small amount of property or even lack of any capital did not seem to be a hindrance to success in farming. The table shows in addition that forty-five or 11.5 per cent had from $1000 to $3000 or an average of $2000 each; that twenty-eight or 7.2 per cent possessed money or property valued at $3000 to $6000 or an average of $4500 each; that fourteen or 3.5

per cent had property worth $8000 each; and only 12 or three per cent had $10,000 or more. Out of the total number of Master Farmers who reported net incomes of $7000 or more only one had more than $6000 when he started farming. Of the sixteen others who had net incomes above $7000, all started with less than $500 each. The highest average net income of $4043 each belongs to the group of sixty-nine Master Farmers who started with nothing or debts. The second highest or $4007 belongs to the group of 159 who started with an average of $250 each. One might infer that a lack of capital may have acted as an incentive to do good farming.

4. MONEY OR PROPERTY INHERITED BY MASTER FARMERS

Many of the Master Farmers have inherited no money or property at all. The Master Farmers who have not inherited any wealth include 115 or 29.6 per cent of the group. Two additional groups, the first consisting of twenty-five or 6.4 per cent and the second consisting of thirty-nine or ten per cent inherited less than $1000 for each member of the groups. All the Master Farmers who inherited less than $1000 each make up a total of 179 or 45.9 per cent of the entire number in the study. When the next group (that inherited an average of $1500 each) is added, these four groups comprise 55.3 per cent of the entire number or 215 of the Master Farmers studied. It is not probable that this inherited wealth was much of a factor in making them successful farmers. While these 215, who inherited from nothing to $2000 each, comprise 55.3 per cent of the group, they received 76.4 per cent of all net incomes above $6000. The group that did not inherit any wealth includes only 29.2 per cent of the farmers studied yet it includes 51.4 per cent of all those receiving net incomes above $6000. Whatever the convenience of inherited wealth may be, the success of the men included in this study, as far as incomes are concerned, has not been based on it. The average income for the group that did not inherit any wealth is $5530 each. A group of six individuals who inherited between $20,000 and $30,000 each had an income of $5142 each.

5. WEALTH INHERITED BY MASTER FARMERS IN RELATION TO THE NUMBER OF CHILDREN IN THEIR FATHERS' FAMILIES

The amount of wealth inherited in the instances of the Master Farmers has varied greatly. Table 24 (not included in this volume) shows the inheritance in relation to the number of children in the families of their fathers. The families with only one child averaged $7350. Families with eleven or more children averaged $2454. The decline in the amounts of money inherited is not regular with the increase in the size of families, yet it is clear that there is a general relationship. That children of smaller families generally inherit larger amounts is indicated by the study.

6. THE SIZE OF FARMS IN RELATION TO THE NET INCOME OF THE MASTER FARMER

The sizes of farms operated by the Master Farmers as shown in Table 25, vary from a few acres to thousands of acres. Two men of the group farm less than thirty acres, two others operate more than 6000 acres. The types of farming in these cases differ very much. The two with the smallest acreages averaged $2500 and $22,500 respectively. The average for the two is $12,500 each. The two with the largest acreages averaged $9000 each. The group of six Master Farmers who operated farms ranging from thirty-one to sixty acres have net incomes averaging $6142. The lowest incomes are found in the group that operates from sixty to one hundred acres. There are fourteen in this group and the average income is $2500. The increase in income is not regular, but in general follows the increase in acreages. Small farms farmed intensively bring large returns. Large farms bring equally large returns to owners individually but not nearly so large when the amount of the investment is taken into consideration.

7. THE RELATION BETWEEN THE INVESTMENT AND NET RETURN

There is a relation existing between the amount of money invested in the farm plant and the net income of the Master Farmer. Generally the larger investment brings the larger income. Table 26 shows the situation as it exists among the Master Farmers. The net incomes of the men who had invested more than $80,000 range from the very lowest to the very highest. The average income for the forty in this group is $5162, or 5.1 per cent on the investment. The other groups are given in decreasing order as follows: The net incomes for the ninety-seven individuals who invested $51,000 to $80,000 was $4077 each or a return of 6.4 per cent on their money; the 104 whose investment is between $31,000 and $50,000 received an income of $3322 each, or a return of 8.3 per cent; the sixty-six Master Farmers with

TABLE 25

NET INCOME IN RELATION TO ACREAGES FARMED

Net Incomes	Acres 30 acres or less	30-60	61-100	101-140	141-200	201-280	281-450	451-700	701-1000	1001-2000	2001-6000	6001-or more	Not Ans.	Total
$1,000-$2,000		1	7	7	17	9	13	4	2	2				62
$2,001-$3,000	1	2	1	9	22	24	21	6	4	4	1			95
$3,001-$4,000				4	11	15	17	14	3	1	1			66
$4,001-$5,000		1	2	6	8	10	12	10	3	1	1			54
$5,001-$6,000		1	1	1		5	6	4	2	5	1			26
$6,001-$7,000					1	2	3	2	1	1	2			12
$7,001-$8,000				1		2		1		2				6
$8,001-$10,000		1					2			2		2		7
$10,001-$15,000						2	1	1		2				6
$15,001-$20,000		1								2				3
$20,001-$25,000	1													1
Not answered			3	4	5	9	11	10	4	2	2		1	51
Totals	2	7	14	32	64	78	86	52	19	24	8	2	1	389
Percentages	0.5	1.8	3.5	8.2	16.5	20.1	22.1	13.3	4.8	6.2	2.1	0.5	0.3	100.0
Average income	$12,500	$6,142	$2,500	$3,017	$2,727	$3,644	$3,580	$4,047	$3,633	$6,727	$4,916	$9,000		$3,752

TABLE 26

NET INCOME IN RELATION TO PRESENT FARM INVESTMENT

Net Income	$10,000-$20,000	$21,000-$30,000	$31,000-$50,000	$51,000-$80,000	$81,000-$120,000	Not Ans.	Totals
$1,000-$2,000	24	14	13	6	4	1	62
$2,000-$3,000	19	21	31	17	6	1	95
$3,000-$4,000	1	11	22	23	8	1	66
$4,000-$5,000	4	9	19	15	5	2	54
$5,000-$6,000	1	2	5	11	7		26
$6,000-$7,000			2	4	5	1	12
$7,000-$8,000		1		3	1	1	6
$8,000-$10,000		1	1	1	1	4	7
$10,000-$15,000		1		2	1	2	6
$15,000-$20,000					2	1	3
$20,000-$25,000						1	1
Not answered	4	7	11	15	3	11	51
Totals	53	66	104	97	43	26	389
Percentages on investments	14.9	12.4	8.3	6.4	5.1		
Average net income	$2,255	$3,110	$3,322	$4,077	$5,162		

$21,000 to $30,000 invested had an income of $3110 or 12.4 per cent; and those with investments of $10,000 to $20,000 received an average income of $2255 or 14.9 per cent on their investment. The largest investments produced larger incomes, but practically only one-third of the interest rate was returned on the money invested as compared with that of the group with the lowest investment.

8. THE RELATION OF THE EDUCATION OF THE MASTER FARMER TO HIS INCOME

There are many factors affecting the income of the Master Farmer. Many individuals have felt that education and training are actually detrimental to the success of the Master Farmer as measured in terms of financial returns. Table 27 shows that at least the college graduates were not penalized in this respect. The college graduates with master's degrees received the highest average returns or $4214. The other incomes are as follows: Master Farmers with less than an eighth grade education, $4013; those with eighth grade education $3940; college graduates, $3918; those having three years of high school training or less, and those with four years of high school, receive respectively $3522 and $3500; those with some college training received $3447.

TABLE 27

INCOME OF MASTER FARMERS IN RELATION TO EDUCATIONAL STATUS

Incomes	Less than eighth gr.	Eighth grade	1-3 yrs. H. S.	4 yrs. H. S.	Bus. Coll.	1-3 yrs. Coll.	Coll. Grad.	Master's degree	Not Ans.	Totals
$1,000-$2,000	13	16	10	6		11	6			62
$2,001-$3,000	23	26	17	6		15	7	1		95
$3,001-$4,000	13	21	7	5	2	9	7	2		66
$4,001-$5,000	11	10	4	5	1	6	14	3		54
$5,001-$6,000	5	7	4	3		3	4			26
$6,001-$7,000	1	3	1	1			5	1		12
$7,001-$8,000		3		1		2				6
$8,001-$10,000	3	3				1				7
$10,001-$15,000	2	2	1			1				6
$15,001-$20,000	2		1							3
$20,001-$25,000		1								1
Not answered	13	14	12	1		4	4	2	1	51
Totals	86	106	57	28	3	52	47	9	1	389
Percentages	22.1	27.2	14.7	7.2	.8	13.4	12.1	2.3	.5	100.0
Average income	$4,013	$3,940	$3,522	$3,500	$3,833	$3,447	$3,918	$4,214		

The average income for all college graduates was $3960. This was slightly higher than the income of any other group except those of less than eighth grade education.

Table 28 shows that the larger portion of the college men fall in the lower age groups. The percentage of college men according to age groups are as follows: The age group of less than forty years, and that of 41-50 years had respectively forty per cent and 42.1 per cent who had some college or a complete college training. The age groups of fifty-one to sixty years, and sixty-one years and over, had respectively 17.1 per cent and 18.4 per cent of individuals with some or complete college training. The percentages of those completing only a grade school training or less are the inverse of these and are given in the table. The men with college training are generally younger men and have not been engaged as many years in farming as the others.

Table 29 shows the net income in relation to the number of years the Master Farmer has farmed and the schooling he has received. The comparisons are shown in terms of the median income which gives a truer measure of the income of the individuals of each group than is obtained by the average income. In certain of these groups where the number of individuals is small the median may be high or low. The facts show that there is a general tendency toward higher incomes among the college graduates and also among the men with more years of experience in farming. However, the group with eleven to twenty years of experience shows unusually high incomes throughout. The range of incomes of the men with only elementary education is wide and the incomes of these groups compare quite closely with those of the men with a college training. It should be noted that the men with more years of experience have had less college training, but have large incomes because of the longer years in farming. There is probably no definite relationship existing between the education and income of this group of Master Farmers.

The incomes as shown in this study agree only in part with certain studies reviewed by Professor Works of Cornell University. Professor Works (1, pp. 258-65) says "The reader will find that the data, as reported, are constant in showing that when farmers are grouped according to the amount of schooling they possess the farmers with the greater amount of schooling have a larger income than those who have had less schooling."

Professor Works gives the results of a Cornell University study, by

Warren, covering 573 farmers. Those with a district school education had a labor income amounting to $318 each; those with a high school training received $622 each; and those with more than a high school training received $847 each. Professor Works shows similar results from a Kansas Agricultural College study. In this case the common school graduates received an annual income of $422 each; those with some high school education received $554 each; those with a partial college course $859 each, and those with a complete college course received $1452 each. From another Cornell University study, Professor Works reports incomes of fifty farmers. Those without an agricultural education had an average income of $1100; those with agricultural short courses $2200 and those with a four-year agricultural course averaged $3300 annually.

The average labor income of 1860 farmers, as reported by Professor Works from three studies, one made at Cornell University, another at Kansas Agricultural College, and a third on farms in Indiana, Iowa, and Illinois by the United States Department of Agriculture, is $494 for those of elementary education, $815 for those of high school grade, and $1340 for those with college education. The average of these three groups is $883. These figures are probably suitable for comparison with the income of the Master Farmer.

It is probable that certain unusual factors operate among the men chosen as Master Farmers. The incomes of the Master Farmers as compared with those of the farmers included in these studies, indicate that the Master Farmers are a very unusual type of men.

9. Net Income as Related to Date of Land Purchase

The date of purchase of land does not seem to have any decided effect on the net income received by the Master Farmers. The Master Farmers purchasing land before 1900 have incomes of $3922. Those purchasing land from 1900-1910 have incomes averaging $3572; those between 1911 and 1917 average $3833; and those purchasing after 1917 received a net income of $3977. This latter group has the largest average net income. The difference between incomes is so small that little importance can be attached to it. The prices of the later land purchases were usually much higher than the prices of those purchased earlier. It might be significant that the incomes are so high in the group which purchased land after 1917.

CHAPTER IV

OTHER INTERESTS OF THE MASTER FARMER

A number of outstanding farm organizations have been built up among the agricultural people of the United States. These organizations have as their purpose the betterment of the rural life of the nation through continuous education and training. This education is directed largely to the vocational interests of the farmer, with regard to efficient production and marketing of crops and livestock. The social and cultural phases of rural life, though less emphasized, are also being promoted by these organizations. Three of the organizations which have the widest extension geographically, and of which farmers are most commonly members, are the American Farm Bureau Federation, the Grange, and the Farmers' Union. In certain sections of the United States where these do not exist, organizations of growers of cotton, wheat, or other products take their place. In most instances these latter organizations which are composed of producers of some one product are generally supplementary to the three great organizations. The local organizations exist only where voluntary efforts of farmers create them. The agricultural colleges of the states and the federal government, under the Smith-Lever law, give definite assistance in financing the work and securing instructors for these organizations.

1. FARM ORGANIZATIONS

Of the 389 Master Farmers, 281 or 72.3 per cent are members of the Farm Bureau Federation. The Grange has a total membership among the Master Farmers studied of ninety-two or 23.7 per cent. However, seventy-two of this number are also members of the Farm Bureau Federation and nine others are members of the Farmers' Union. Eleven of the Grange members belong to the Grange only. The Farmers' Union claims seventy-four or 19.2 per cent of the Master Farmer group. Of the seventy-four, nine are also members of the Grange, and twenty-six are members of the Farm Bureau Federation. Of this group forty-four are members of the Farmers' Union only. Six Master Farmers belong to all three groups. It will be noted that the Master

Farmers who are members of these organizations evidently coöperate well as indicated by the duplicate and even triplicate memberships held. Most of the forty-nine farmers who are not members of the above groups, belong to the cotton, wheat, tobacco, or livestock coöperatives in the sections where these major organizations do not operate.

2. LEADERSHIP IN COMMUNITY AND CIVIC ORGANIZATIONS

Leadership in community and civic affairs is constantly needed in rural districts. The Master Farmers are not only good farmers, but they are also leaders in other forms of activities. Many rural communities do not have outstanding leaders and in these instances no community spirit is fostered. According to Table 31, seventy-eight or 20.1 per cent of the Master Farmers have been leaders of club work for the young people of their communities. The work of education in their communities has been shared by 260 or 66.8 per cent of the Master Farmers as school board members; 120 or 30.8 per cent of them further assisted in this work as presidents of their respective school boards. In the wider range of educational activities 167 or 42.2 per cent have assumed the leadership of community activities. Township offices have been held by 149 or 38.2 per cent and county offices by thirty-eight or 9.8 per cent of the Master Farmers. Fifteen farmers have served their communities as representatives in state legislatures.

The Master Farmers serve in various capacities in many other organizations. The list of the offices held by them indicates some of the services they render. Individual Master Farmers are serving in the following capacities: member of the state Young Men's Christian Association, director of the Federal Land Bank of Wichita, trustee of Purdue University, member of the Advisory Board of the University of Illinois, director of the Illinois Crop Improvement Association, president of Rural Fire Truck Association, secretary of the Board of Trustees of Piedmont College, member of the Vocational Education Board, member of the State Hospital Board, member of the State Board of Elections, director of the State Chamber of Commerce, state Secretary of Agriculture, member of the State Constitutional convention, vice-president of the State Highway Commission, state club leader, state institute speaker, United States Inspector of Vegetables and Fruits, member of the American Society of Agricultural Engineers. Three Master Farmers were members of state boards of agriculture. Others have indicated that they are trustees of colleges.

3. Membership in Coöperative Organizations

The benefits of coöperative marketing for farm products have not yet been utilized by farmers generally. It is practically a new field to the American farmer. A study of the Master Farmer group will probably reveal in a comparative manner what will be found among farmers generally. As shown in Table 32, 134 or 34.4 per cent of the Master Farmers are members, and forty-seven of these have been either officers or directors of coöperative livestock shipping associations. Coöperative grain elevator membership is held by 104 or 26.7 per cent, and sixty of this group have been officers or directors of such organizations. Creameries, while not so generally coöperative, include sixty-two or 15.9 per cent of the Master Farmers, twenty-six of whom have been officers in some capacity. More than 14.4 per cent or fifty-six farmers are interested in milk and cheese coöperatives. Coöperative stores or buying associations have a membership of seventy-five or 19.3 per cent of the Master Farmers. One of each three of these

TABLE 31

COMMUNITY AND CIVIC OFFICES HELD

	Club work leader	School board member	Pres. school board	Community leader	Township office	County officer	State senator	State Rep.
No.	78	260	120	167	149	38	5	15
Per cent	20.1	66.8	30.8	42.9	38.2	9.8	1.3	3.9

TABLE 32

MEMBERSHIP IN COÖPERATIVE ORGANIZATIONS

	Live stock	Grain elevator	Creamery	Cheese factory	Milk producers	Local store	Wholesale	Fruit	Eggs	Other organizations
No.	134	104	62	3	53	51	24	25	17	81
Per cent	34.4	26.7	15.9	0.8	13.6	13.1	6.2	6.5	4.4	20.7

TABLE 33

MISCELLANEOUS ORGANIZATIONS

	Insurance	Banking	State livestock	State horticulture	State fair	County fair	State breeders	County breeders	Other organizations
No.	120	99	55	44	15	109	68	86	107
Per cent	30.8	25.4	14.1	11.3	3.8	28.0	17.5	22.1	35.3

TABLE 34

LEISURE ACTIVITIES OF MASTER FARMERS

	Church	Sunday School	Farm meetings	Coöpera-tives	Socials	Lectures concerts	Motion pictures	Lodges
Number attending	354	239	333	254	324	205	223	149
Times per year	39	42	14	10	10	7	10	12
Percentage	91.2	60.1	85.6	65.2	83.2	52.6	57.3	38.4

members has been an officer in the organization. Coöperative fruit associations are utilized by twenty-five or 6.5 per cent of the farmers. Egg associations for handling their own production are participated in by seventeen Master Farmers, six of whom have been officers. Among other coöperatives listed by eighty-one individuals, are those of cotton, tobacco, wheat, and potatoes. The average Master Farmer is a member of at least two coöperative enterprises.

4. Miscellaneous Organizations

Table 33 shows that insurance associations of one kind or another enlisted 120 or 30.8 per cent of the group. Thirty-nine of these men have been officers in these organizations. That Master Farmers are a vital part of banking institutions is attested to by the fact that ninety-nine or 25.4 per cent have been stockholders, and more than half of this number have been directors or officers in such institutions. Membership in state livestock and state breeders' associations is claimed by 123 or 31.6 per cent of these farmers. In the capacity of directors or officers of these associations, seventy of these men have served. Since many of the Master Farmers, especially of Ohio and the eastern states, are vegetable growers, forty-four are members of state horticultural associations and thirteen have been officers. A number of these men have served as presidents of their organizations. Five Master Farmers are members of state fair associations and 109 have been members or officers of county fair boards. Eighty-two farmers or 20.9 per cent hold membership in county breeders' associations. About one hundred or 25.7 per cent named other similar organizations in which they participate as members or officers. These facts are simply an indication of the interests, activities, and organizations in which the modern farmer must take part if he is to be awake and successful in his line.

5. RELIGIOUS INTERESTS OF THE MASTER FARMER

The farmer participates not only in educational and economic organizations, but he is interested in the religious activities of the community. One cannot be assured that attendance at religious meetings or even membership in such organizations is a guarantee of real spiritual life. Yet this evidence is so affirmative that the burden of the proof would fall on any one who assumed any other interpretation. What then are the facts regarding the Master Farmers and their participation in religious affairs? Are they generally members of churches? Where do they attend church? What part do they take in religious work?

Only one other leisure time activity interests as many farmers as religion. Of the 389 Master Farmers included in this study, 354 or 91 per cent attend church. The average number of times these 91 per cent attend church or similar religious meetings yearly is thirty-nine. This is three out of each four Sundays. There are in addition to this group, those who have no access to a church service but attend Sunday School. There are 239 or 60.1 per cent who attend Sunday School or Christian Endeavor Society. This group averages forty-two times per year. According to church preference, fourteen or 3.6 per cent are Roman Catholics; 362 or 93.1 per cent are Protestant, and 10 or 2.6 per cent have no preference. The total church membership among the Master Farmers is 322 or 82.8 per cent. Of those attending church, 265 or 68.1 per cent indicate their attendance as regular, 113 or 29.0 per cent as occasional; three or .8 per cent indicate no attendance, and eight or 2.1 per cent did not check this item.

The proportion of Master Farmers attending church in the open country is small compared with those attending in towns or cities. Only 100 or 25.7 per cent attend churches located in the country, while 219 or 56.3 per cent attend churches in towns or cities of less than 5000. Fifty-eight or 14.9 per cent attend churches in cities of over 5000 population. This item was not checked by twelve or 3.0 per cent of the farmers. A more definite study would probably reveal that many of these people formerly worshipped in country churches. The coming of the automobile and better roads has shifted the religious centers. From this study there is nothing to indicate that religion is not vital to the Master Farmers. Positively, however, there is every evidence that religion plays a real and a vital part in their lives.

The membership of the churches attended by Master Farmers and their families, indicates that 106 or 27.2 per cent have an average of seventy-five members; ninety-three or 23.9 per cent have an average membership of 150; sixty-one or 19.7 per cent average 250 members; twenty-nine or 7.5 per cent average 350 members; nineteen or 4.8 per cent average 500 members; fourteen or 3.5 per cent average 700 members; and twenty-three or 5.9 per cent average more than 800 members. Only 27.2 per cent of the group attend churches with a membership of less than one hundred. The membership of the churches attended by seventy-four per cent is large enough to guarantee ample funds for furnishing both housing and real pastoral leadership. The Master Farmers not only hold church membership and attend religious services a certain number of times per year, but in a majority of cases are vital factors in the church organizations, the educational or the worship programs of the church. Church offices, such as trustee, elder, deacon, or similar are being held by 225 or 57.8 per cent of the Master Farmers; fifty or 12.9 per cent have been superintendents of Sunday Schools; eighty-two or 28.9 per cent have been teachers of Sunday School classes, and eight or 2.1 per cent have been leaders of music, chorus, or orchestra. The total number of the entire group holding such offices is 346 or 88.8 per cent.

6. MUSIC

Music forms one of the cultural interests of the Master Farmer's home. In this study the facts ascertained indicate musical appreciation of the home rather than the degree of efficiency of attainment in music. One of the best measures of the appreciation of music of the Master Farmer's family is the number of musical instruments which it possesses. Another measure is the musical organizations in which the Master Farmer participates. The facts show that 330 or 85.5 per cent of the Master Farmers have pianos in their homes; 225 or 57.8 per cent have victrolas; 303 or 78 per cent have radios; eighty-six have stringed instruments; fifty-six have cornets or other brass instruments; thirty-four have reed instruments; and ten indicate other musical instruments. Among the Master Farmers forty-four take part in quartets, eighty-seven in church choirs, fifty-one in community choruses, sixteen in orchestras, and thirty-three in bands. A number of the Master Farmers have been leaders of orchestras and bands for many years. At least two have made a business of directing choirs in large churches.

7. Other Leisure Activities

The Master Farmer spends time in other leisure activities, but no attempt was made to obtain a full inventory of these. A group of those leisure activities most common to rural people was chosen for study. Religious activities, farm bureau meetings, and coöperative meetings belong among leisure activities, but mention has previously been made of them. Table 34 shows these activities in a comparative manner based on the number participating in each activity. Picnics and social affairs are mentioned by 83.2 per cent or 324 members of the group. The attendance at these ranges from a few to more than one hundred times yearly. The average number attended yearly is ten. Chautauquas, concerts, and lectures are attended by more than fifty per cent of the group on an average of seven times each year. The motion pictures and theatres attract 223 or 57.3 per cent of the entire group. These are attended ten times per year, or less than once per month. Based on the entire group, it would average, approximately, five times each year. According to statements of the Master Farmers, they have neither the time nor the desire for the type of entertainment generally presented by the motion picture shows. About thirty-eight per cent or 149 are members of lodges and attend about twelve times a year. The most commonly attended activity enjoyed by the group is agricultural fairs. The yearly attendance is five days. Fishing and hunting are the vacations of 36.5 per cent or 142 of the group. Certain of the Master Farmers go deer hunting and one enjoys fox hunting. Pictures from the Master Farmers indicate that in the south, both deer and wild turkeys are available for hunting. One Master Farmer hunts in Oregon occasionally. In addition to these types of leisure activities, 240 or 61.6 per cent of the group take other vacations of a varied nature. A number have taken trips abroad; some have spent winters in Florida and California; places of interest in the United States and Canada have been visited by many of them. The list of activities they would carry out, if they had six months of leisure time, indicates the trend of vacations they desire most or the things they are most interested in.

8. Desires Relative to Spending Leisure Time

Among the Master Farmers, 223 indicated that if they had six months to spend as they liked, they would want to travel in the United States; eighty-eight indicated they would want to travel abroad, and forty-four indicated that they would go on a camping trip. Study along some agricultural line was checked by 182 or 46.8 per cent, forty-one or 10.5 per cent indicated research along some other college lines, six checked music, six checked art, and nineteen or 4.8 per cent indicated either reading or writing. Each Master Farmer was asked to check two items. While the largest number checked travel, it is of interest to note that sixty-five per cent of the group were interested in some form of study or literary work. It would have been possible for all of them to have checked some other activity.

9. Hobbies of the Master Farmer

Aside from the farm work that must be done, a great many of the Master Farmers find time to engage in certain activities that they enjoy especially well. These special interests or hobbies may be a part of the regular vocation of farming or on the other hand, they may be of an entirely different nature. Some of these are entirely leisure activities. A complete list is given under suitable headings. It is very probable that these activities include many of the most interesting features of modern farm life.

Vocational			**76**
Live stock interests		20	
Stock improvement	11		
Breeding registered short horn cattle	1		
Good stock and good land	2		
Purebred Herefords	2		
Raising Guernseys	1		
Raising Holstein cattle	1		
Purebred Percherons	1		
Showing cattle	1		
Farm crops and grains		12	
High grade corn breeding	3		
Better farm seeds	3		
Corn exhibits	2		
Corn judge—seed specialist	1		
Study of seed problems	1		
Alfalfa raising	1		
Keeping weeds down	1		
Soils		15	
Scientific study of soils	8		
Soil improvement	6		
Purchasing poor farms and building them up	1		
Farm work		11	
All farm work	4		
Best farmer in the county	2		

Better crops than neighbors		2		
Best crop yield in the state		1		
New farm practices		2		
Mechanical lines			8	
Farm repair		3		
Electrical wiring		2		
Machinery and shop work		2		
Home building		1		
Fruits and vegetables			6	
Apples and vegetables		1		
Potato growing		2		
Apple orchard		1		
Magnolia figs	1			
Pecans	1			
General			4	
Good management		1		
Speculation (just a little)		1		
Study of agriculture		1		
Efficiency and economy		1		
Worthy home interests				37
Beautifying the home		6		
Good looking farm		5		
Modern conveniences		5		
Flowers and lawns		10		
Gardening		2		
Farm wood lot		1		
Tree growing		1		
Landscaping		3		
Growing evergreen trees		1		
Hybrid tea roses		2		
Boy's pal		1		
Aesthetic interests				20
Nature study, wild flowers			4	
Literary			11	
Writing articles for papers		4		
History, biography, travel		7		
Art, music, travel			3	
Drawing and painting		1		
Musical director		1		
Learning to play piano (at 49 yrs. of age)		1		
Health interests				13
Golf		3		
Travel in the mountains		1		
Deer hunting		1		

Fox hunting	1	
Driving fast horses	1	
Croquet	1	
Outdoor sports	1	
Fishing	4	
Community services		**22**
Church, Sunday School, community	3	
4H Club Work	2	
Community building	4	
Farm coöperatives	3	
Farm organizations	1	
Institute work	2	
Public speaking	2	
Extension service	1	
Road building	1	
Educating tenant's children	1	
Entertaining children	1	
Politics	1	
Miscellaneous		**5**
Stamp collecting	2	
Fox raising	1	
Travel	2	
Total		**161**

CHAPTER V

INFLUENCES AFFECTING THE MASTER FARMER

To-day the problems of farm life are acute. The more highly specialized and better financed organizations of the city are drawing many of the young men of talent and ability away from the country. Leaders of education and sociology are interested in discovering those influences and factors that are potent in developing young men and women of the rural community. They also wish to find those influences that are potent enough to retain a proper proportion of these leaders thus trained, so that country life may be enriched. Is there sufficient challenge in farm life to interest men and women of real ability? Can farm life be made attractive enough to compete successfully with city life? This chapter of the study of the Master Farmers of America deals with the factors and influences which led these individuals to become farmers and in addition those factors that led them to be unusually efficient in farming. These will include the vocations of their fathers, the occupations chosen by their brothers and sisters, and certain other influences of training and environment.

1. The Master Farmer's Father

The occupation of the Master Farmer's father will be considered first. This item as shown in Table 35, was checked by 388 of the 389 Master Farmers. Facts from the study show that only five or 1.3 per cent were unskilled laborers, and but three each, or .8 per cent belonged to the skilled mechanics and the office worker groups. Banking, government service, railroad employment, and mining each claimed but one or three-tenths of one per cent of the group. Eleven or 2.8 per cent of the fathers belonged to the professions and twelve or three per cent of them belonged to the building trades as carpenter, contractor, or builder. All of these trades named include only eleven per cent of the fathers of the group. The vocation of farming was followed by 345 or 88.8 per cent of all the fathers of Master Farmers. Whether these sons of farmers were compelled to be farmers by circumstances of birth and occupation of their fathers, or whether they really chose their occupations will be answered in part by facts presented later. The facts here presented show that almost 90 per cent of the Master Farmers chose the occupation which their fathers had followed.

2. BROTHERS AND SISTERS OF THE MASTER FARMER

Some additional light on this situation may be given by a study of the occupations followed by the brothers and sisters of the Master Farmer. All the Master Farmers, with one exception, reported the number of children in their fathers' families. From the figures in Table 35, it will be seen that the 388 families had a total of 2241 children or more.[1] The average number of children to the family is 5.8. Eleven of these families of the Master Farmers' fathers had but one child each while thirty-one of them had eleven or more each. The largest number of children in any one family was fifteen. Fifty-six or

TABLE 35

THE OCCUPATIONS OF THE FATHERS OF MASTER FARMERS AS COMPARED WITH THOSE OF THE FATHERS OF MASTER FARMERS' WIVES

	Fathers of Master Farmers		Fathers of Master Farmers' wives	
	No.	Percentage	No.	Percentage
Farmer, agriculturist	345	88.7	273	75.0
Agent, office worker, salesman, realtor	3	0.8	8	2.3
Banker, financial agent	1	0.3	4	1.1
Contractor, building trades, carpenter, bricklayer, plumber, etc.	12	3.1	14	3.8
Government and public service	1	0.3	7	1.9
Merchant, dealer, proprietor	4	1.0	28	7.7
Professions: doctor, lawyer, dentist, nurse, teacher, preacher, etc.	11	2.8	15	4.2
Railroad employee	1	0.3	2	0.5
Mining (laborer)	1	0.3	3	0.8
Trades other than building (skilled mechanics, etc.)	3	0.8	4	1.1
Manufacturer, public utilities	0	0.0	4	1.1
Unskilled laborer	5	1.7	4	1.1
Not answered	1			
Totals	389	99.9	365	100.0

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[1] Where the number of children was more than eleven the exact number was not given.

14.4 per cent of the families had six children each. There were more families of this size than any other size.

TABLE 36

A COMPARISON OF OCCUPATIONS OF CHILDREN OF MASTER FARMERS' FATHERS WITH THOSE OF CHILDREN OF MASTER FARMERS

	Families of Master Farmers' fathers		Families of Master Farmers	
	No.	Percentage	No.	Percentage
Farmer, agriculturist	1301	69.8	291	55.2
Agent, office worker, salesman, realtor	95	5.1	53	10.1
Banker, financial agent	21	1.1	11	2.1
Contractor, building trades, carpenter, bricklayer, plumber, etc.	47	2.5	2	0.4
Government and public service	31	1.7	14	2.7
Merchant, dealer, proprietor	67	3.6	15	2.9
Professions: doctor, lawyer, dentist, teacher, etc.	189	10.1	118	22.4
Railroad employee	34	1.8	6	1.1
Mining (laborer)	6	0.3	2	0.4
Trades other than building (skilled mechanic, etc.)	19	1.0	9	1.7
Manufacturer, public utilities	15	0.8	3	0.6
Unskilled laborer	38	2.0	2	0.4
Totals	1863	100.0	526	99.8

Out of the 2241 or more children, 1863 were listed according to the occupations followed by each, or in the case of sisters, according to the occupations followed by their husbands. No occupation is given for 378 children. These may be accounted for in the following ways: first, by death before the age of choosing a vocation had been attained; second, in certain cases, sisters did not marry nor choose an occupation; third, by a lack of certainty whether or not the occupation of the husband was the one desired in answer to this question. It is believed that for purposes of comparison these figures will give the relative proportions of these families entering each occupation. Into what occupations, then, did the brothers and sisters of the Master Farmer enter? What percentage including the Master Farmer himself, went into farming? Table 36 shows that more than eighty-eight per cent of this group of 1863 children went into four different occupations as follows: seventy-seven or five per cent into building trades; 3.6 per cent or sixty-seven, merchants; 10.1 per cent or 189 into professions; and 69.8 per cent or 1301 into agriculture. More of them have entered the professions as doctor, lawyer, minister, or teacher than any other vocation outside of farming. Only 2.5 per cent entered the building trades, two per cent or thirty-eight entered unskilled labor, and only 1.1 per cent or twenty-one entered banking. Trades, mining, and manufacturing, received only one per cent or less each.

3. Influences That Led the Master Farmer to Choose Farming

In response to Item 4 of the questionnaire, the Master Farmer named the influences that led him to choose farming as a vocation. While he may have overestimated certain influences or left out certain others that should have been included, it is believed that the appraisal of the influences that led him to enter into farming is a fair one. Certain influences that were not listed in the questionnaire were filled in by the Master Farmer. In answering this item the Master Farmer was allowed to check more than one of the influences if he so desired. In many cases only one influence was checked, but on an average there were nearly two checked by each. Out of the 389 all but one checked this item. Seventeen or 4.4 per cent entered farming largely because of ill health. In some cases they were advised that fresh air and sunshine were necessary. In one case the individual was advised to go south for his health, but instead he went on a farm and became a Master Farmer.

The financial opportunity of the farm was the appealing factor to thirty-one or eight per cent of the group. A still larger number of thirty-four or 8.4 per cent of the group stated that college influences had much to do with the choice of the farm for their life work. While over fifty per cent of the Master Farmers entered high school, only thirty-seven or 9.5 per cent believed that these schools were a special factor in influencing them toward the farm. It would seem that many parents had overlooked one of the best incentives for interesting their sons in farm life, for only forty-five or 11.3 per cent of the Master Farmers mentioned the raising of some crop or livestock in partnership with their fathers, as one of the deciding influences. The parental wish was one of the deciding factors in the case of sixty-two or 15.9 per cent of the Master Farmers. An additional seventy-seven or 19.8 per cent chose farming because it was available and the best thing open at the time. An influence much more vital, judged by the number checking this factor, is that of being reared on a farm. More than 228 or fifty-eight per cent have indicated this as a determining influence. One individual who was left an orphan, was advised to leave town and find some friendly farmer who would keep him. Not only does he now point with pride to the kind farmer with good managerial ability whom he chose, but his state also points to the Master Farmer who has developed from this orphan lad. The love of farm life was checked by more Master Farmers than any other influence listed. This was a determining influence in the choices of 255 or sixty-five per cent. Thirteen other influences were named by other Master Farmers. A number stated that the farm was the best place to raise a family. Certain others said that the love of growing crops and raising livestock led them to choose farming.

4. Influences that Led the Master Farmer to do Unusually Good Farming

It is one matter to choose farming as a vocation but it is a far different matter to do farming in a thoroughly competent and efficient manner. There are six millions of farmers in the United States to-day, but the unusually competent may be numbered only by the thousands. In Item 18 of the questionnaire, the Master Farmer was asked to check the one influence that had most to do with making him an unusual farmer. A number of the Master Farmers checked more than one influence. Only six of the Master Farmers were especially influenced to do unusual farming by reading in books about farmers who had done unusual things. This group is unusually small, but special achievement in agriculture has received little attention in books. The farm papers have been doing very unusual things for the farmers. Sixty-two or 15.9 per cent stated that the farm papers had been an unusual factor of influence to them. The following statements from Master Farmers indicate the influence the farm papers have had on them:

"Reading in the *Old Michigan Farmer* in my early years inculcated in my mind the rudiments of better farming."

"I was inspired to do my best by good farm papers."

"When I was a boy the farm papers were a delight to me."

"I will testify that many inspiring articles in *Prairie Farmer* and *Wallaces' Farmer* have helped me wonderfully."

"Reading of *Farm & Ranch* and *The Progressive Farmer* helped me very much."

Others mentioned, "Stories of successful farmers," "Stories of Farm Life in England," "Articles by Uncle Henry Wallace," "Articles in the *Breeders' Gazette*."

Eleven or 2.8 per cent definitely traced their inspiration to lectures or series of lectures given by men like Hopkins, P. G. Holden, Dean Mumford, or other similar personages. College or high school training was the decisive factor in the case of twenty-three or 5.9 per cent. The observation of the work of good farmers is given by forty-three or 11.6 per cent. Many of the farmers either inherited or purchased run-down farms. The challenge of this situation led many of these men to read all books, bulletins, and farm papers that would help build up the soil of these farms. Seventy-eight of the Master Farmers have made the run-down condition of their farms the very basis of their success. Another group consisting of seventy-nine or 20.3 per cent were compelled by financial necessity to find a solution for successful farming.

There are two other influences that are more frequently checked than these mentioned. The first of these is that of doing as big a job in agriculture as other leaders do in other lines. Perhaps this challenge is one of the most inspirational that can come to a man of real ability. One Master Farmer states that his classmates had determined to do great things in their chosen professions, and he had determined to be as successful in farming as they planned to be in their chosen lines. Another said that all his classmates were going out to be either lawyers or army officers and that he felt a compulsion to do a comparable job in the field of agriculture. Eighty-eight or 22.6 per cent of the Master Farmers were led by this challenge. The second of these reasons given and the one mentioned by 220 or 56.5 per cent of the group is the desire to do well anything undertaken. This indicates a type of mind that is not satisfied to do things in the ordinary way, or as the average would do them. In almost all the special influences given by the Master Farmers there is the idea of challenge in some form or other. In some instances it is purely a subjective motive, but in others it is a very objective challenge that the Master Farmer determined to meet.

CHAPTER VI

EDUCATION OF THE MASTER FARMER

According to the judgments of Master Farmers certain abilities are important in farming. These abilities are probably in part native and in part the result of training afforded by society. Nearly 300 Master Farmers have each named three abilities that they believed to be most important for the farmer. Of the 865 named, 647 seem to be abilities and 218 seem to be personal traits. The largest group of abilities consisting of 260 is definitely associated with the ability to administer or manage, the second largest group, consisting of 177, is concerned with mental and educational abilities. Financial abilities were named by 100, abilities connected with grain and livestock by 40, and physical abilities by 42. A complete inventory of the abilities and personal traits as named by Master Farmers is given below:

Managerial abilities		260
To manage	85	
To make decisions	42	
To buy and sell efficiently	24	
To execute plans	19	
To plan	19	
To be efficient	18	
To act coöperatively	17	
To manage labor	16	
To plan ahead 2-3 years	16	
To organize	4	
Mental and educational abilities		177
To think	76	
To be persistent	59	
To use scientific knowledge	14	
To accept new ideas	13	
To adopt changes	13	
To do research	2	
Financial abilities		100
To handle finances	56	
To be economical	39	
To handle farm accounts	5	

Live stock abilities and crop abilities		40
To breed livestock	11	
To judge livestock	6	
To handle livestock	7	
To handle soils	12	
To judge grains	4	
Physical abilities		42
Miscellaneous abilities		28
Mechanical ability	21	
To make a good home	3	
To rear a good family	1	
To be a good loser	3	
Total		647

Personal Traits

Industry	46	
Energy	42	
Love of farm life	24	
Honesty	20	
Health	16	
Stability	10	
Good morals	10	
Punctuality	10	
Faith	8	
Patience	8	
Optimism	8	
Sociability	7	
Courage	4	
Religious attitude	3	
Neatness	2	
Total		218

It is now important to compare the abilities as given by these men with the score-card used in choosing Master Farmers. This comparison will be made with the score-card used by *Prairie Farmer*. The score-card shows that the first three main headings, including 550 points, are concerned with operation and organization of the farm, business methods, and general upkeep of the farm. These are largely financial and managerial, based on general intelligence and mental ability. Parts IV and V deal with the home and community life of the farmer. The personal traits named by Master Farmers seem to be quite closely related to this portion of the score-card. However, industry, energy, and love of farm life, which were named by the greatest number, are definitely associated with the entire process of farm life. There is every evidence that the abilities named by Master Farmers compare closely with the score-card. The abilities named seem to be rather qualities of the mind and not as objective as the items on the score-card. This difference of objectiveness is to be expected since the Master Farmers only stated the ideals of efficiency they had in mind, whereas in the score-card objective standards were set up that would measure the actual efficiency of these men in terms of accomplishment.

What relationship, if any, exists between the types of abilities named by the Master Farmers and those types of abilities developed by the educational processes within our schools and those processes carried on outside of the schools? If the abilities named by Master Farmers are important, then these abilities should at once become the objectives toward which the training within the school, as well as that outside of the school should be directed. The abilities and personal traits demand definite and technical information along business and managerial lines. They also demand mental training of such a nature that the farm individuals will be able to keep in constant touch with the latest developments of science as well as the best ideals of culture. A study of the personal traits indicates definite demands for the development of the moral and spiritual sides of life. These among others are the most important objectives. After the presentation of the education which the Master Farmer has received and the education he desires to have, a concluding section will discuss the extent to which the objectives set up in connection with the abilities named, have been attained.

1. Education Received from Schools

When asked to designate the two most important ways of solving the farm problem, 224 of the Master Farmers, as shown in Table 19, stated that proper education and training, along with some one other factor, was the best solution. Whether right or wrong, it is evident that Master Farmers have a great respect for what the educational system can do for them. It is believed that the Master Farmer reflects correctly the attitude of farmers in general. What is the educational level of the Master Farmer group? Does any relationship exist between his success in farming and the amount of education he has had in schools and colleges? Certain individuals believe that education is helpful to men in other occupations, but not to those in the occupation of farming. One Master Farmer writes as follows: "The questions asked seem to be based on the supposition that college education and college help must be largely responsible for the success of the Master Farmer. Although a college graduate myself, I am satisfied that the college as such had mighty little to do with my success or with the Master Farmers of this state. The great majority of our Master Farmers are such because of their love of the job and their farm-mindedness." Certain other Master Farmers, however, very definitely trace the success of their farming back to inspiration and training received in college. One Illinois Master Farmer says: "While at the University of Illinois, I heard such men as Dr. Hopkins lecture on the importance of maintaining soil fertility, and Dean Mumford on better livestock. Father's sickness caused me to decide on agriculture for a life work, and the influence of such men as Dr. Hopkins caused me to do an extra good job in farming."

A Texas Master Farmer writes: "The returning of my graduated son from the Texas A. and M. College enabled us to place our farming on a more scientific and business-like basis." An Oklahoma Master Farmer says: "When I was attending Agricultural College, I decided to farm in a modern and successful way." An Indiana Master Farmer says: "In college, my roommate and I declared our supreme purposes—he to be an outstanding journalist, and I to be a successful and respected farmer. This decision from my college days has always helped buoy me up in times of decision." An Ohio Master Farmer writes: "At my first opportunity I entered the Ohio State University where I completed a two-year course in agriculture. This intensified my ambition to become a good farmer, so that whatever success I may have attained is due apparently to early inclination and early training."

a. General Education

A judgment of this matter can best be made after the educational status of the Master Farmer is compared with that of the average farmer. Among the Master Farmers the educational status is given in Table 37.

There are eighty-six or 22.1 per cent who had received an elementary education of less than eighth grade. In certain cases it was much less. Conditions in the home or in the school were such that no better educational opportunity was available. Eighth grade education was the extent of the schooling received by 106 or more of the group. These two groups receiving an eighth grade education or less constitute 192 individuals or 49.3 per cent of those studied. This indicates that almost fifty per cent of the Master Farmers received an eighth

TABLE 37

THE EDUCATIONAL LEVEL OF MASTER FARMER

Education	Number of Master Farmers	Percentage
Less than eighth grade	86	22.1
Eighth grade	106	27.2
1 to 3 years in high school	57	14.7
4 years in high school	28	7.2
Business course	3	0.8
1-3 years in college	52	13.3
4 years in college	47	12.0
Master's degree	9	2.3
Not answering	1	0.3
Total	389	99.9

grade education or less. When most of these men were in school, secondary education was not as popular as now. According to the editor of *The Farmer* (17, p. 33), "One out of every two Minnesota Master Farmers had received a high school, a farm school, business college, or a college education. When most of these men were in school, probably not more than one in every twenty persons went beyond the common school. One Master Farmer in four attended state agricultural school or college. One Minnesota farmer in seventy has received similar education." It will be noted here that one of each two Master Farmers received some secondary or higher education. There are 197 or 50.5 per cent who entered high school, 57 of these stopping at the end of the first three years or earlier, while twenty-eight or 7.2 per cent terminated their education at high school graduation. The total number who completed a high school course was 136 or 34.8 per cent of the entire group. Three additional individuals not included here took a business course but no mention is made as to whether or not they had received a grade school or a high school education. Of those completing a high school education, 108 or 27.8 per cent entered college. At or before the completion of three years of college, fifty-two of this number or 13.4 per cent of the entire Master Farmer group discontinued their training. It should be explained that perhaps in a large number of cases this was at the completion of a two-year college course and graduation. There are a number of agricultural colleges that formerly graduated students from a three-year course. This was in reality comparable to graduation from the present four-year course. Fifty-six of those entering college or

14.3 per cent of the entire group, completed a full college course. Forty-seven of this group discontinued their college work at this level while the other nine took graduate courses and completed the requirements for a master's degree. One Master Farmer had been a physician. Another had been a veterinary doctor. In a recent study of 2169 Iowa farmers made at the Iowa State College,[1] it was found that only 10.3 per cent had attended a high school. The present Master Farmer study shows that fifty per cent attended high school. The study by Stewart showed that only fifty or 2.3 per cent of the 2169 graduated from college, while in the present Master Farmer study 14.4 per cent were graduates of a four-year college course. Thus among the Master Farmers we find more than six times as many college graduates as are found in a cross section of Iowa farm population.

Byram (4, p. 28) in his study of 135 Master Farmers of the middle western states, in which 121 answered in regard to their educational status, found that forty-nine or 40.5 per cent had no education beyond that given in the elementary school; that forty-one or 33.9 per cent had attended college; that twenty-seven or 22.3 per cent had graduated from a four-year college course, and that two had received the master's degree. These percentages are based on the number of individuals answering the item in Byram's study, and are therefore higher than if based on the total number included in the group as is done in the present study. However, the group studied by Byram would still have a six per cent larger number of college graduates than are found in the present study of 389 Master Farmers.

b. Agricultural Education

Should a farmer have training in an agricultural college? What agricultural education and training have the Master Farmers had? Table 38 shows that 230 or 59.2 per cent of the entire group had no agricultural training in an institution. This is interpreted to mean that they had no formal agricultural education in an agricultural college of either the collegiate or the non-collegiate type. A total of sixty Master Farmers took one or more years of agricultural work in an agricultural college. These may be classified as follows: fifteen or 3.8 per cent of the entire group were in college only one year, twelve or 3.0 per cent stopped at the end of two years, eight more or

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[1] Stewart, R. E., Rural Sociology Department, Iowa State College, Unpublished study.

3.1 per cent left college at the end of three years, while twenty-five or 6.4 per cent of the total number in the entire study completed a full college course of four years in agriculture. The Master of Science degree was received by five of these college graduates after one year spent in graduate study. There are 103 who attended agricultural short courses, usually at the agricultural colleges. It is assumed that in a number of cases these short courses were taken by those who formerly had taken agricultural work in an agricultural college. In other cases these men had no previous training in agriculture. These short courses usually extend over a few days or a few weeks of intensive instruction of a practical nature. The total number of Master Farmers who took either short courses or regular college work was 158 or 40.8 per cent of the entire group. This indicates that 59.2 per cent had no agricultural training of any kind in schools. Whatever training they received came from other sources. Byram found results comparable to these. In his study, sixty-two of the 112 or 55.3 per cent of those who answered that item had no agricultural training; sixteen or 14.3 per cent had graduated from an agricultural college, and one had received the degree of Master of Science. As these percentages were based on the number who answered the item they are higher than those of the present study. These items give the amount of vocational training possessed by the farmers who are most successful in their chosen vocation. No attempt is made to answer the question whether or not greater success would have been attained by these men if they had received training in agriculture.

TABLE 38

AGRICULTURAL EDUCATION OF MASTER FARMERS

	None	Short courses	1 yr.	2 yrs.	3 yrs.	4 yrs.	Master of Science
Number	230	103	15	12	8	20	5
Percentage	59.2	26.5	3.8	3.0	2.1	5.1	1.3

c. The Education the Master Farmer Desires

There are many individuals who are ready to say what education and training a man should have in order to farm efficiently. Many of these men are not farmers and have not experienced real farm life. Many others are farmers who have not been successful in farming. The value of the answers of either of these groups would not be very great, but the men who have become masters in an occupation always speak with the most authority. One, therefore, turns to the group

TABLE 39

THE EDUCATION A MASTER FARMER DESIRES FOR HIS SON WITH REFERENCE TO HIS OWN EDUCATION

Master Farmers' education	*Education of his son* Eighth grade	H. S. educ.	Smith-Hughes H. S.	2 yrs. coll.	4 yrs. coll.	2-yr. agr. course	4-yr. agr. course	Not ans.	Total	Percentage
Less than eighth grade education		4	10	2	5	20	40	5	86	22.1
Eighth grade education	1	4	7	2	2	18	69	3	106	27.2
1-3 yrs. high school		2	2	2	2	15	31	3	57	14.7
4 yrs. high school					2	7	18	1	28	7.2
Business college						2		1	3	0.8
1-3 yrs. college					3	5	42	2	52	13.3
4 yrs. college		1		1	6	1	36	2	47	12.0
Master's degree							9		9	2.3
Not answered								1	1	0.3
Totals	1	11	19	7	20	68	245	18	389	
Percentage	0.3	2.8	4.8	1.8	5.1	17.5	63.0	4.6		99.9

of men who have had a successful experience in agriculture and have become masters in this vocation. What answer does the Master Farmer give? Item 25 of the questionnaire is as follows: "If you wanted your son to be the kind of a farmer you would like to be, which of the following types of training would you want him to have? The answers to the types listed are given in Table 39. Only one individual believed that an eighth grade education was sufficient preparation for farming. It will be noted that the eighth grade was the extent of his education. The regular high school training was the amount of schooling desired by eleven or 2.8 per cent of the group, while nineteen additional Master Farmers preferred that the Smith-Hughes high school training should be given. There were thirty-one who desired training lower than a college grade. With the exception of five individuals making this choice, all had an eighth grade education or less. Four had some high school training, and one had college training. There were seven who chose two years in a liberal arts college. Graduation from a liberal arts college was the choice of twenty or 5.1 per cent. Of the Master Farmers who chose the agricultural college for his training sixty-eight or 17.5 per cent desired graduation from the two-year course. By far the largest group, consisting of 245 or 63.0 per cent of the Master Farmers, desired a full college course in an agricultural college. These facts are all based on the statement that the son was entering farming and the father is giving him what he feels would be the best training for the solution of the problems he will meet. Twenty-five Master Farmers desired other types of education than those listed. Some of these suggestions will be given. One said: "A full college course and two years of law." Another said: "At least a one-year business course in addition to a four-year college course in an agricultural college." A number of the Master Farmers visited stated that they preferred two years of college education in a Christian college or in some of the smaller colleges, and the last two years should then be taken in an agricultural college. This preference was made on the basis that they felt a boy was immature and lacked a moral background to combat the evil influences existing in some of the larger educational institutions. A number of the Master Farmers who favored the graduation from a liberal arts college said that this training would give the tools of education as well as the cultural side, after which the son would be prepared to fit into the vocation of farming. One Ohio farmer said: "He will need a liberal arts course more than an agricultural course."

Since 49.9 per cent of the Master Farmers had no education beyond the eighth grade and were eminently successful in farming, it seems that it would be natural for them to feel that a college education would be unnecessary. Only thirty-one or 7.9 per cent felt that less than a college education would be sufficient preparation for meeting the problems of the modern farm situation. In opposition to this view 340 or 87.5 per cent desired either a college course of two years or of four years in length. The full four-year course of either the liberal arts college or the agricultural college was desired by 265 or 68.1 per cent of the entire group.

The desire of the agricultural classes that education of a secondary level or a collegiate level be made available for their children, is probably responsible for the rural consolidated school movement and partly responsible for the junior college movement. If the children of the most successful farmers need a college education in order to solve the problems they must face, can we expect other rural children to solve the same problems of their vocation without it? In many rural communities no adequate elementary education is provided and no secondary education of any kind is available.

In response to Item 22 of the questionnaire the Master Farmer tells what type of an educational institution he favors for the training of country children. He states his preference in regard to the three most common types of schools that furnish education for the children of the rural communities. The first of these is the one-room country school, the second is the one-room country school and the town high school, and the third is the consolidated grade and high school. Table 40 shows a complete tabulation of the answers recorded to this item; it also shows the educational level of each Master Farmer answering the question. These replies, with sixteen not answering, show that twenty-five or 6.4 per cent favored the one-room country school. It is only fair to these men to state that they probably have in mind some additional education elsewhere, since only one thought that the elementary school training was sufficient training for his son. The one-room country school and the town high school type was favored by ninety or 23.1 per cent of the group of Master Farmers as the proper school for educating their children. The desire to have a consolidated school furnishing both the grade and high school education for the farm children was indicated by 258 or 66.2 per cent of the group. It was evident, from conversations with Master Farmers, that some of those that did not check the consolidated school as their preference, made the decision on the basis that the consolidated school was a financial impossibility for the farmer. A few individuals defended the one-room school on its supposed merits of cheapness, availability, and individual instruction. The replies to this item show that fully two out of each three of these masters of farming prefer an education for farm children that is the equivalent of the training given to children of the cities. Although two out of three of the Masters say that the consolidated school is preferred, yet in Iowa two-thirds of the rural children attend the one-room country school and in many other states the proportion is still larger.

TABLE 40

RURAL SCHOOLS PREFERRED BY MASTER FARMERS FOR THE TRAINING OF THEIR CHILDREN WITH REFERENCE TO THE MASTER FARMER'S EDUCATION

Educational Attainment	One-room rural school	One-room school & town H. S.	Consolidated high school	Number not answering	Total	Percentage
Less than eighth grade	6	24	49	7	86	22.1
Finished eighth grade	10	26	67	3	106	27.2
1-3 years of high school	4	15	37	1	57	14.7
4 yrs. high school	1	6	21	0	28	7.2
Business course	0	2	0	1	3	0.8
1-3 yrs. college	2	11	38	1	52	13.3
College graduate	2	5	37	3	47	12.0
Master's degree	0	1	8	0	9	2.3
Not answered	0	0	0	0	1	0.3
Total	25	90	258	16	389	
Percentage	6.4	23.1	66.2	4.1		100.0

d. The Size of Family and Education

Is there any relationship existing between the size of the family the farmer rears and the number of years of educational training the children receive? Do children of smaller families receive a higher degree of education? The facts here used in reply to these questions are derived from the number of years of education received by the Master Farmer with reference to the size of the family in which he was reared.

Table 41 shows that where the Master Farmers were reared in families of only two children each, they received a higher degree of education than those of any other size family. Where a Master

TABLE 41

THE AMOUNT OF EDUCATION RECEIVED BY THE MASTER FARMER IN RELATION TO THE NUMBER OF CHILDREN IN HIS FATHER'S FAMILY

	Education											
Children	Less than eighth gr.	Eighth grade	1-3 yrs. H. S.	4 yrs. H. S.	Bus. coll.	1-3 yrs. coll.	Coll. Grad.	Master's degree	Not ans.	Total	No. Some coll.	Per cent With Some college
One	4		2	2		2	1			11	3	27.2
Two	2	8	4	1		2	10	1		28	13	46.4
Three	4	13	8	3		9	6	2		45	17	37.7
Four	7	6	5	5	2	7	5	1		38	13	34.1
Five	16	11	7	4		6	5	2		51	13	25.5
Six	12	15	6	7		4	9	3		56	16	28.6
Seven	11	14	5		1	6	4			41	11	23.4
Eight	9	14	6	1		4	3			37	7	18.9
Nine	9	10	2	1		4	2			28	6	21.4
Ten	4	6	5	2		4	1			22	5	22.7
11 and over	8	9	7	2		4	1			31	5	16.1
Not answered									1	1		
Totals	86	106	57	28	3	52	47	9	1	389		
Percentage	22.1	27.2	14.7	7.2	0.8	13.4	12.1	2.3	0.3	100.0		

Farmer was one of two children, 46.6 per cent of them received either some college education or graduated from college. The percentages of children receiving some college education or graduating from college follow in descending order: Where there were three children in the family, 37.7 per cent received some college education; four children, 34.1 per cent; six children, 28.6 per cent; one child, 27.2 per cent; five children, 25.5 per cent; seven children, 23.4 per cent; ten children, 22.7 per cent; eight children, 21.4 per cent; eleven or more children, 16.1 per cent. The opportunity for higher education in the case of the Master Farmer has been almost inversely proportional to the number of children in the family. It may be noted, however, that the family groups with only one child were exceeded by four other larger family groups in the percentage of their children receiving some or a complete college education. The family groups of eleven or more children had the lowest percentage in the college level. In almost all cases where the percentages of children rceiving a college training were high, the percentages stopping at the elementary level were correspondingly low.

e. The Education of His Wife

To what extent do Master Farmers marry wives of the same educational attainments as they themselves possess? Table 42 shows that at each educational level the largest single group of Master Farmers has married wives of the same attainment. The number who marry wives with either more or less education than they possess is always smaller than those who marry wives with the same education. However, in most cases the number who marry wives with the same attainment is less than fifty per cent. The table shows that there is a well defined tendency to choose wives with the same or similar amounts of schooling.

2. Education Received from Other Sources

While education in schools and colleges is more common now than ever before, at the same time the various agencies giving training outside of the schools have never been more numerous or more effective. In recent years much scientific knowledge has been made applicable to agriculture. Many Master Farmers say that they have received more new farm practices in the last few years than ever before. They say it is this information that has made them efficient and outstanding. Many of these men are individuals of mature age.

TABLE 42

THE EDUCATIONAL LEVEL OF 365 MASTER FARMERS IN RELATION TO THAT OF THEIR WIVES

Master Farmer	*Master Farmers' Wives*										
	Less than eighth grade	Eighth grade	1-3 yrs. H. S.	4 yrs. H. S.	Bus. coll.	1-3 yrs. coll.	4 yrs. coll.	Master's degree	Not ans.	Total	Percentage
Less than eighth grade	28	28	8	10	0	4	1		1	80	22.0
Eighth grade	9	49	21	10	0	7	4	1	2	101	27.7
1-3 yrs. H. S.	6	12	22	5	0	6	3			54	14.8
4 yrs. H. S.	2	1	7	8	0	5	3		1	27	7.4
Bus. course		1	1	1						3	0.8
1-3 yrs. college	2	6	9	4	0	17	8	2	1	49	13.4
4 yrs. college	1	2		3		13	20	1		40	11.0
Master's degree			1	4		1	2	1		9	2.5
Not answered									2	2	0.5
Totals	48	99	69	43		53	41	5	7	365	
Percentages	13.2	27.1	18.9	11.8		14.5	11.2	1.4	1.9		100.0

a. Age of Receiving New Farm Practices

Table 43 shows the relation existing between the ages of Master Farmers and the periods of life in which they felt that they received the greatest number of new farm practices. Of the eighty-six Master Farmers in the age group of sixty years and over, forty-five or 52.3 per cent believe that they had received the greatest number of their new farm practices after they were forty-six years of age. Thirty-six or 41.8 per cent said they adopted the greatest number between thirty-one and forty-five years. Only 3.5 per cent believe they adopted them before they were thirty years of age. In the age group from fifty-one to sixty years there are 140 Master Farmers. Of these 19.3 per cent checked the period after forty-five years, 70.7 per cent checked the period from thirty to forty-five years, and 5.7 per cent checked the period before thirty years. The total figures for all age groups show that while 100 per cent were eligible to check the first period, only 11.7 per cent indicated that period for receiving the most new practices. Assuming that all over forty-one years of age were eligible to check the second period and that the nineteen under that age who checked it were eligible, a total of 348 or 92.2 per cent would have been eligible to check this period. However, 67.7 per cent actually checked it. Since all over fifty-five years of age were eligible to check the last period, the number eligible would be 156 or forty-one per cent. Actually 18.9 per cent or about one out of each two eligible checked this period. Among the Master Farmers' wives, 22.9 per cent or one of each five checked the first period, 62.8 per cent or about two out of each three checked the second period, and 11.2 per cent or one out of each nine checked the third period. In the case of the Master Farmers'

TABLE 43

RELATION OF AGE TO ACCEPTANCE OF NEW FARM PRACTICES

Ages of Farmers	*Periods of acceptance* 15-30 years	31-45 years	46-60 years	Not answered	Total
Less than 30 years	1				1
31-40 years	19	19	0	1	39
41-50 years	15	103	1	2	121
51-60 years	8	99	27	6	140
61 years and over	3	36	45	2	86
Not answered				2	2
Totals	46	257	73	13	389
Percentage eligible to check period	100	92.6	41.0		
Percentage who checked period	11.7	67.7	18.9		

wives, it is assumed that the ages roughly correspond to those of the Master Farmers.

These facts seem to be in harmony with the statement of Thorndike (18, p. 177) when he says: "In general nobody under forty-five years of age should restrain himself from trying to learn anything because of a belief or fear that he is too old to learn." The Master Farmers give every evidence of taking on new practices in the period of forty-five years and above. Wilson and Clapp (28, p. 17) state: "In the case of both men and women, adopting improved farm practices is higher for those between the ages of thirty-six and fifty-five than those of thirty-five years and younger. There does seem to be a decided falling off in the acceptance of new farm practices of both men and women in the oldest age groups, fifty-six years and older. The percentage . . . is only slightly lower than in the group thirty-five years or younger." In the present study both men and women receive a larger percentage of new farm practices after the period of forty-six years than they do in the period before thirty.

These are opinions of the Master Farmers, but arrived at by nearly eight hundred individuals independently. The attempt here made is simply to indicate the ability of Master Farmers to take on new practices in the various periods of their lives. Many farmers who have lived in this same period have not been able to take on new farm practices although many more practices are available than were available twenty or thirty years ago.

b. Education from Farm Organizations

Among the other agencies of education outside of the schools and colleges are the farm meetings, now organized in almost every community under the sponsorship of some farm organization. It is difficult to evaluate the education thus received no matter how practical the instruction received may be. Meetings held under the auspices of the Farm Bureau, the Grange, the Farmers' Union, or similar organizations were attended by 332 or 85.6 per cent of the Master Farmers. This number of farmers averaged at least fourteen times a year. The meetings were usually from one to three hours in length. The persons giving instruction were experts from either colleges or universities giving practical information along lines of interest to the farmers.

Coöperative meetings were attended by 254 or 65.2 per cent of the Master Farmers, an average of ten times yearly. These meetings have to do with the buying or selling of goods that the farmer is interested in. Since the attendance at all of these meetings is entirely voluntary on the part of farmers, it is certain that they receive real value from them or they would not attend. These types of education have become very vital sources of information for the adult farm population. Among the Master Farmers all but forty-nine or 87.4 per cent are members of the three main farm organizations. Most of these forty-nine are members of other organizations, in localities where the Farm Bureau, the Grange, and the Farmers' Union do not operate.

c. Education from Sources Other than Reading

Perhaps the three most important sources of new farm practices outside of reading are: first, experimentation on their own farms and observation of other farmers; second, farm bureau meetings and the farm bureau agent; third, short courses and special days at agricultural colleges. With reference to twelve important farm subjects the Master Farmer was asked to indicate the source from which he received the most information. In Table 44 it will be noted that on the

TABLE 44

SOURCES OF FARM PRACTICES OTHER THAN READING

	Own experimentation other farmers		Farm bureau, county agent		Special days short courses at Agricultural College	
	No.	Per cent	No.	Per cent	No.	Per cent
New and best varieties of seeds	157	41.8	109	28.0	38	9.7
Hogs: care, feeding, diseases, etc.	121	31.1	70	18.1	43	11.1
Dairy cattle: care, feeding, diseases	102	26.3	81	20.9	36	9.3
Beef cattle: care, feeding, diseases	90	23.1	48	12.8	32	8.2
Better herd sires	102	26.3	88	22.7	30	7.7
Sheep: feeding, care, diseases	60	15.4	52	13.3	27	6.9
Insect control, weed eradication	110	28.2	146	37.6	35	9.0
Poultry: care, feeding, diseases	83	21.6	114	29.4	26	6.7
Soil fertility, and legumes	116	29.8	134	34.4	41	10.5
Lime and commercial fertilizers	81	28.6	140	36.0	29	7.5
Materials and times for spraying	36	9.3	132	33.8	33	8.4
Coöperative marketing	56	14.4	144	38.2	26	6.7

first six subjects, their own experimentation and observation of other farmers is placed first, on the last six the farm bureau and the county agent are placed first. A smaller number checked the special days at colleges. An average of 24.7 per cent checked their own experience, twenty-seven per cent checked the farm bureau, and 9.5 per cent short courses and special days at college.

d. Education from Reading

There are three sources of reading on which the Master Farmer depends for many of his new farm practices. These are agricultural bulletins, farm papers, and books. In this study evidence is presented showing the relative importance of these sources of reading to the Master Farmer. As shown in Table 45, twelve of what seemed to be the main subjects of importance to the farmer were chosen, and the Master Farmer was asked to indicate his first and second choices from which he received the most valuable information concerning them. It will be noticed that books supplied a very small portion of the Master Farmer's information. This is probably because books are not up-to-date, or are not available when needed. Many farmers do not

TABLE 45

READING SOURCES OF NEW FARM PRACTICES

	Farm papers		Bulletins		Books	
	No.	Per cent	No.	Per cent	No.	Per cent
New and best varieties of seeds	143	36.7	140	36.0	10	2.6
Dairy cattle: care, feeding, diseases	127	32.5	89	22.9	32	8.2
Beef cattle: care, feeding, diseases, etc.	108	27.8	65	16.7	13	3.3
Better herd sires	162	42.9	67	17.3	15	3.8
Poultry: care, feeding, diseases, etc.	128	32.8	115	29.6	12	3.0
Soil fertility: legumes, alfalfa	161	42.8	129	33.1	20	5.1
Coöperative marketing	188	48.4	51	13.1	11	2.8
Insect control, weed eradication, etc.	110	28.2	176	45.0	8	2.1
Hogs: care, feeding, diseases	117	30.1	123	31.6	19	4.8
Sheep: care, feeding, diseases, etc.	67	17.3	68	17.5	15	3.8
Lime and commercial fertilizers	104	26.7	157	41.8	12	3.0
Materials and times for spraying	56	14.4	176	45.0	7	1.8

have access to good libraries. Of the twelve subjects the Master Farmers indicated that on seven of these the most important information came from farm papers, and on the other five from bulletins. These subjects show the number of Master Farmers that indicated each as the first choice.

Many of the farmers are engaged in types of farming in which they do not use certain of the practices listed in Table 45. They checked only the ones that they used. In the table the complete percentages, based on the 389 Master Farmers, are given. The variation in the sources from which this information is received may be accounted for in part by the amount of education these men have had. Bulletins and books are usually more difficult to read than papers. Most of the men who read the books probably got in touch with this material in college. In a number of instances the same number checked bulletins as checked farm papers. The average number checking farm papers was 31.7 per cent. The average number checking bulletins was 29.1 per cent. Books as a source were checked by an average of 3.7 per cent.

In the earlier part of this chapter a list of abilities that the Master Farmers considered important were given. The main portion of the chapter gave consideration to the education of the Master Farmer. At this time a short comparison will be made between the abilities considered important and the actual education the Master Farmer received or the education he would desire to receive.

The education received in schools by the Master Farmers shows that while these men have had a better training than average farmers their education generally has been very limited and has not covered the objectives set up according to the abilities named by the Master Farmers. Further evidence of this is shown by the fact that most of these men desire a complete college training for their sons if they are to be farmers. The Master Farmers also indicate by a large majority that they desire rural schools able to give a training that is equivalent to that received by children of the city. These desires of the Master Farmers are in harmony with the ideals and objectives set up in the inventory of judgments named. These ideals and objectives of education cannot be obtained from the one-room rural schools. Certainly, if education is to be the greatest factor in solving the farm problem, much better opportunities for schooling will have to be granted to many farm children than are now afforded them.

CHAPTER VII

THE MASTER FARMER'S FAMILY

The problems facing the farmer of to-day may have changed, but the solution of those problems, as formerly, rests on the farm home as a unit. The farm woman has always been a great factor in agricultural life. She is to-day as great a factor as ever, not only socially and religiously but economically as well. The problems confronting the modern farm home are both vital and complex. In no other occupation is the influence and help of woman more necessary. However, there are many persons who believe that the farm wife needs to be able to perform only a narrow range of activities that are concerned chiefly with the daily routine of household affairs, such as preparing food for the family and child bearing. Some have pointed out the narrowness of the existence of the farm woman. Even some individuals of education and training have felt that the farm woman needed little or no education beyond that given in the elementary grades. These individuals say that a woman with a college training will be dissatisfied or will not remain on the farm. Concepts similar to these are not uncommon regarding the vocation of rural homemaking.

Some of the factors and influences that affect the life of the farm woman will be considered in this chapter. Among these will be the occupation of her father and the various educational influences with which she has had contact in early life or during the period of adult life. This chapter also considers the children of the Master Farmer's family with regard to education and vocations which they have entered.

1. THE MASTER FARMER'S WIFE

a. The Occupation of the Master Farmer's Wife's Father

Seventy-five per cent of the wives of the Master Farmers were reared on farms and their fathers were farmers. The occupations of the entire group are indicated in Table 35. A total of fifteen per cent of them belonged to three occupations as follows: merchants, twenty-eight or 7.7 per cent; professions, fifteen or 4.1 per cent; and building trades, fourteen or 3.8 per cent. Less than two per cent of the fathers belonged to any one of the other vocations.

b. Education of the Master Farmer's Wife

It is of interest to examine the facts and discover the educational status of the Master Farmers' wives. Table 46 gives the education and training that the 365 Master Farmers' wives have had in schools and colleges. These figures show that forty-eight or 13.2 per cent had less than an eighth grade education, and that ninety-nine or 27.2 per cent had finished an eighth grade training. These two groups comprising 40.4 per cent of the entire number, received no training in schools beyond the elementary school. However, in the Master Farmer group there were 49.3 per cent who had this same educational attainment. Nine per cent more of the wives received a higher education than their husbands. Some high school education, or graduation from high school was the extent of the training of 116 or 31.8 per cent of the group of Master Farmers' wives. Of this number, forty-six or 12.6 per cent of the entire group, graduated from high school, while seventy or 19.2 per cent completed three years of high school training or less. The total number of Master Farmers' wives who secured some college training, or a complete college course, or continued with graduate work was ninety-seven or 26.6 per cent. In the case of the Master Farmers, those who had some college work, or a complete college course comprised 27.6 per cent of the group. In either case approximately one out of each four had some college training. At or before the completion of three years of college work, fifty-four of those entering

TABLE 46

EDUCATION OF MASTER FARMERS' WIVES

Extent of education	Number of Master Farmers' wives	Percentage
Less than eighth grade	48	13.2
Eighth grade	99	27.1
1-3 years high school	70	19.2
4 years high school	45	12.6
Business course	1	0.3
1-3 years college	54	14.8
4 years college	38	10.4
Master's degree	5	1.4
Not answering	5	1.4
Total	365	100.4

college, or fourteen per cent of the entire group, discontinued their college work. Forty-three or 11.8 per cent, however, graduated from a four-year college course and five or 1.4 per cent received Master's degrees in arts or science. It is believed that this is a much higher educational status than is common to farm women in general, but no figures are available for comparative purposes.

c. Opinions of Master Farmers' Wives Concerning Education They Desire

The question as to how much education or what type of education a farmer's wife should have is one on which opinions differ greatly. Probably no one is better qualified to speak on this subject than those who are actually wives of Master Farmers. The replies given in Table 47 were received in response to Item 89 of the questionnaire which reads as follows: "Place a cross (x) before any one of the following types of education that in your opinion would most nearly fit you, if you were a young woman to-day, to make farm life pleasant and meet the problems that face the modern farm home." Out of the group of 365 Master Farmers' wives, only two believed that an elementary education would fit them for making farm life interesting and meeting the problems of the modern farm home. A general high school education was favored by fourteen or 3.8 per cent of the group, and forty-one or 11.2 per cent more favored a high school education with the Smith-Hughes home economics training for girls as a part of it. A total of 268 or seventy-three per cent of these women expressed the opinion that either two years or four years of college training was necessary. Of the total group, eighteen or 4.9 per cent desired a two-year course in a liberal arts college, twenty-four others or 6.6 per cent preferring a two-year college training wanted the work in an agricultural college. The least amount of college training that would meet the farm home problems of the wife was stated as a complete course of four years in a college by 226 or 62.3 per cent of these farm women. Seventy of this number, or 19.2 per cent of the entire group, desired a college training in a liberal arts college. Many of these stated that the cultural side of rural life was neglected.

Very interesting comments were made by Master Farmers' wives suggesting special needs of farm women for an education. Some of these are as follows: "A farmer's wife needs a grade school and a high school education, and above all a training in all the things a mother and a farmer's wife should know. I do not know what type

TABLE 47

EDUCATION MASTER FARMERS' WIVES HAVE HAD AND WHAT EDUCATION THEY DESIRE TO HAVE

Educational status	Eighth grade	H. S. grad.	Smith-Hughes H. S. grad.	2 yr. L. A.	L. A. grad.	2 yrs. agric. coll.	Agric. coll. grad.	Not answered	Total	Percentage
Less than eighth grade	2	3	9	3	5	2	19	5	48	13.2
Eighth grade	0	7	22	4	12	9	31	14	99	27.1
1-3 yrs. high school	0	3	3	6	11	7	31	9	70	19.2
4 yrs. high school	0	1	1	1	9	4	26	3	45	12.6
Business course	0	0	0	0	0	0	0	1	1	0.3
1-3 yrs. college	0	0	4	4	12	1	29	4	54	14.8
College grad.	0	0	0	0	18	1	16	3	38	10.4
Master's degree	0	0	0	0	3	0	2	0	5	1.4
Not answered	0	0	2	0	0	0	2	1	5	1.4
Totals	2	14	41	18	70	24	156	40	365	
Percentages	0.5	3.8	11.2	4.9	19.2	6.6	43.1	11.0		100.0

of school would give that outside of a university." Another said: "The wife's education should include nursing and care of children. A home-making course is the most important thing for a home-maker." An Ohio Master Farmer's wife said: "I am a college graduate but find myself very inefficient and wish I had had a home economics course." One North Dakota wife who had less than an eighth grade education said: "A farmer's wife needs a good education along all lines, but when she has not had that opportunity all that she can do is read good books, papers, and listen in on the radio." A Texas Master Farmer's wife says: "A farmer's wife should have an education equal to that of any other occupation."

d. Subjects in Which the Master Farmers' Wives Have Had Training or Desire Training

The Master Farmers' wives were also asked to check the subjects in which they had received training either in high school or college or by private lessons. The subjects listed were such as are considered of vital importance to farm women of to-day from a vocational as well as a cultural standpoint. The subjects, together with the number and percentages of Master Farmers' wives who had training in each of them are given in Table 48.

The subject named most often by the Master Farmers' wives as one in which they had received instruction was vocal and instrumental music, in which 162 or 44.5 per cent had received instruction. The only other subject mentioned by more than thirty-three per cent was sewing, which was named by 123 or 33.8 per cent. Bible study followed next with 118 or 32.4 per cent. Those who had made preparation in secondary schools or colleges for cooking and nutrition were only 111 or 30.4 per cent. Table 46 shows that 59.5 per cent attended secondary schools or colleges, yet only 30.4 per cent or half of the number had any training in this subject. The other subjects together with the number of farm women checking each are as follows: Home nursing, 67 or 18.4 per cent; biology, 61 or 16.2 per cent; poultry raising, 53 or 15.1 per cent; child and parent training, 48 or 13.2 per cent; home management and accounts, 42 or 11.5 per cent; vegetable and small fruit growing, and landscaping were each named only twenty-five times. It is clear that any education received by sixty-six per cent of these farm women in regard to these subjects came entirely from sources other than schools.

It is now of interest to note what these women, many of whom

TABLE 48

SUBJECTS IN WHICH MASTER FARMERS' WIVES HAVE HAD TRAINING OR DESIRE TRAINING

	Subjects they have had in schools		Subjects in which they desire training	
	Number	Per cent	Number	Per cent
Nutrition and cooking	111	30.4	333	91.4
Home nursing	67	18.4	284	75.1
Music (vocal or instrumental)	162	44.5	209	57.3
Poultry raising	53	15.1	239	63.7
Child and parent training	48	13.2	300	82.5
Biology	61	16.7	117	32.1
Home management and accounts	42	11.5	296	81.4
Art and interior decoration	59	16.2	210	57.6
Landscaping	25	6.8	166	45.6
Vegetable and small fruit growing	25	6.8	179	44.2
Bible study	118	32.4	271	74.2
Sewing	123	33.8	307	84.2

have been successful in their homes without education in these subjects, say with regard to education. Table 48 also shows the subjects in which they desire training with the number and percentages checking each item. Only fifteen did not answer this item. Biology was the only subject that was named by less than thirty-three per cent. Landscaping was named by 166 or 45.6 per cent. Vocal and instrumental music which was the subject in which the greatest number had received instruction, at this time appears almost at the bottom of the list with only two others checked less often. It is probable that either the coming of the radio and self-playing instruments has made this accomplishment less necessary, or that other interests are supplanting music. Musical appreciation may be keener to-day than before, but there is less desire to make music. Poultry raising was checked by 239 or 65.7 per cent. Bible study by 271 or 75.1 per cent and home management and accounts by 296 or 81.4 per cent. The three subjects placed as most important by the largest number of Master Farmers' wives were child and parent training by 300 or 82.5 per cent; sewing by 307 or 84.4 per cent; nutrition and cooking by 333 or 91.4 per cent. Only two subjects, landscaping and vegetable gardening, had been studied in college by a smaller number of Master Farmers' wives than had studied child and parent training. But among the subjects to be studied to-day, child and parent training is near the head of the list. Only cooking and sewing were mentioned by larger numbers. These Master Farmers' wives have placed as the most important subjects for training, nutrition and cooking, sewing, child and parent training, home management and accounts, and home nursing.

e. Other Sources of Education

Among the informal sources of education of the Master Farmers' wives are farm bulletins, home demonstration meetings, radios, farm papers, and attendance at fairs. The results obtained when they were asked to indicate the two sources from which they received most of their new household practices show that farm papers were checked by 294 or 80.8 per cent; the home demonstration office and meetings ranked second with 167 or 45.8 per cent; the radio third with 109 or 29.8 per cent; farm bulletins fourth with 93 or 25.4 per cent. Fifty wives indicated fairs as one of the sources. These figures indicate the high respect that Master Farmers' wives have for the farm papers as sources of information and education.

1) Farm Meetings.

The farm women have indicated attendance at the farm bureau and home demonstration meetings as important; 217 or 59.5 per cent of them attend nine times per year. These meetings are often two and three or more hours in length. In such meetings the latest ideas from the educational centers are brought to the farm people, or programs by local talent are presented. Women's clubs are sources of entertainment and education as well. Not quite half of the Master Farmers' wives, 169 or 46.4 per cent are members of such organizations. The average attendance of this number is thirteen times per year. All these sources of information are but a portion of the movement to extend education throughout the entire adult life of the individual.

2) Child and Parent Training.

The child and parent training movement is one phase of adult education. Parents are desiring information on the nutrition, education, and rearing of children. Although probably not many of the rural people have been reached by organized classes, these Master Farmers' wives indicate the other sources from which they are securing such information. Each Master Farmer's wife indicated the sources from which she received such information. Magazine articles were indicated by 286 or 66.8 per cent; 208 or 57.2 per cent listed books; 152 or 42.0 per cent listed farm bureau meetings and lectures;

159 or 43.7 per cent radio talks; twenty-four or 6.4 per cent courses at college or university; and sixty-two or 17.3 per cent named study clubs.

3) Books

To-day the dissemination of information and culture by means of books, magazines, and newspapers is common. The free delivery of mail to almost all farmers daily, may be considered but one phase of education. The presence of books and newspapers in the home is no guarantee that they are read, but it would be difficult for the purpose of this study to secure better criteria. While the Master Farmer may not read all the papers, it is probable that some member of the family does, and that most articles of value will be utilized by the home. The presence of these papers in the home indicates that there is a desire for the information they contain. No effort has been made to find out the different kinds of books or the number of each kind in the home. Any such attempt would have resulted in either a guess or a failure to record the information asked for. Table 49 shows the number of books listed.

TABLE 49

BOOKS IN HOME LIBRARIES

Books	Homes
25 or less books	67
50-150	140
151-250	71
251-350	34
351-500	29
500 or more	17
did not answer	7

The average number of books for all homes reported was 175. Five homes reported 1000 or more volumes. Some of the homes reported 100-150 volumes in the children's libraries. In a study made by Von Tungeln (31, p. 417) of Orange Township, Black Hawk County, Iowa, it was found that 125 homes averaged 100 volumes each. In a similar survey made by Von Tungeln (22, p. 234) of Lone Tree Township, Clay County, Iowa, thirty-four homes averaged sixty-three volumes to the home. While the country people generally do not have access to libraries as much as would be desirable, 126 Master Farmers' homes report that city libraries are accessible to them; eighteen receive books from traveling libraries; nineteen from county libraries; and 126 from school libraries. Seventy-six do not report any library connections.

In response to the request to list the three books they had found most helpful or most influential in the home 127 titles were named. Approximately only half of the Master Farmers' wives answered this item. The *Bible* was the most frequently mentioned book, 159 Master Farmers' wives stating that it was the most influential and helpful book in the home. The nearest competitor was the cook book and the second nearest was *Webster's Dictionary*. A further insight into the types of reading most commonly found in the rural homes, may be gained by an examination of the other titles named. Forty-five named novels, of which the most frequently mentioned were those by Gene Stratton Porter and Louise Alcott. *Ben Hur* and *Pollyanna* were also favorites. Books of poems or favorite poets were mentioned by twenty-seven Master Farmers' wives. Edgar A. Guest and Longfellow were the poets most frequently named. The poems of Browning and Tennyson followed these in popularity. Works of a religious nature were named by forty-one Master Farmers' wives, of which the two outstanding titles were Bunyan's *Pilgrim's Progress* and Sheldon's *In His Steps*. Books of biography, travel, and history were mentioned by 24, good magazines were most helpful to 17, and 11 others named books and papers relating to farm life.

4) Magazines and Papers.

Farm papers either weekly or monthly, form the largest single type of current reading. Table 50 shows the number of farm papers reported.

TABLE 50

FARM PAPERS

Number	Homes
2 or less	8
3-6	197
7-10	129
11 or more	28
did not report	3

The average number of farm papers taken in these homes is 6.5.

In addition to the farm papers, the Master Farmers take an average of more than four general magazines in their homes. The figures in Tables 51 and 52 give the number of general magazines and daily papers as reported by them.

TABLE 51

GENERAL MAGAZINES

Number	Homes
2 or less	21
3-6	319
7-10 or more	12

TABLE 52

DAILY PAPERS

Number	Homes
1 paper each	171
2 papers each	137
3 papers each	37
4 or more	10

The average is a little less than two daily papers to each home, the exact figure being 1.7. Religious papers were taken in 274 or 75 per cent of the homes. This is a high percentage and shows that religion is one of the interests in most of the homes.

f. Religious Interests

At this time the facts with regard to the religious interests of the Master Farmers' wives will be given. While ninety-one per cent of the Master Farmers indicate church attendance, only 81.6 per cent or 297 of the wives as shown in Table 53 attend an average of 38.7 times per year. The attendance at Sunday School or similar meetings is 42.2 times per year. This item was checked by 243 or 66.8 per cent of the wives. Ten per cent more men attend church, but nearly seven per cent less attend Sunday School. The church preferences as given are sixteen or 4.4 per cent Roman Catholic, 340 or 93.4 per cent Protestant. Six indicated no preference and three did not check the item. The percentage of church membership of the Master Farmers' wives is 324 or 89.1 per cent. Eleven per cent or forty-one did not check the item. Regular church attendance is indicated by 260 or 71.5 per cent of the group, ninety-three attend occasionally, from a few times to thirty-five times per year; eight or 2.2 per cent do not attend church and four did not check the item. When asked whether or not the church was a vital institution in the community, five replied that it was not, fifty-seven or 15.6 per cent said that it played only a small part in the community. A larger number 288 or 78.2 per cent replied that it was one of the most vital institutions in the community. Many individual expressions of the worth of the church were given. Many women named some phase of church or Sunday School work as their hobby.

For the future of the church, the most vital question is whether or not the children are interested in church work. The evidence on this item is interesting. There are 846 children of fourteen years of age or over, and of this number 734 or 85 per cent are members of some church organization. This indicates a healthy reaction toward religious work on the part of the Master Farmers' children. The writer has reason to believe that because of the location of this item on the page of the questionnaire some individuals overlooked checking it.

g. Other Leisure Interests

The Master Farmers' wives as shown in Table 53 attend social gatherings and picnics on an average of about twelve times a year. About eighty-two per cent or 301 participate in these types of activities. Card parties and dances have not attracted these farmers' wives to any considerable extent, as only fifty-one or 14 per cent participate in these activities. They are attended on an average of thirteen times per year. Motion pictures and theaters are attended by sixty-one per cent or 224 of the group. The yearly attendance is a little over eight times per year or less than once a month. The same number attend lectures and chautauquas as attend motion pictures, but this attendance is less than seven times each year. Lodges interest twenty-two per cent of the group and are attended eleven times yearly. Agricultural shows and fairs are very popular. Nearly four days each are spent at the fairs by 300 Master Farmers' wives. Other forms of vacations claim the interest of 256 wives. These usually follow the nature of those taken by the husbands and are usually as extensive.

TABLE 53

LEISURE ACTIVITIES OF MASTER FARMERS' WIVES

	Church	Sunday School	Social picnics	Cards dances	Women's clubs	Farm meetings	Motion pictures	Lectures, etc.	Lodges
Number attending	297	243	301	51	169	217	224	224	83
Times per year	38.7	42.2	11.8	13.3	13.3	8.7	8.8	6.7	11.2
Percentage	81.6	66.8	82.7	14.0	46.4	59.5	61.6	61.6	22.8

h. How the Master Farmer's Wife Desires to Spend Leisure Time

Leisure time activities usually indicate the real interests of an individual. A number of statements by Master Farmers' wives indicate the types of leisure they value most. Table 54 shows the kinds of leisure preferred if they had six months to spend as they liked. Each wife was asked to check two items. The first interest indicated is travel in the United States which was checked by 256 or 65.4 per cent of the wives; travel abroad is second and camping trips third. Travel was checked first or second by each wife. Literary work, either writing or reading, and courses in art and music are checked by ninety-six or 24.6 per cent. Study along some college line, some specific agricultural line or research along some other line of interest, was checked by 151 or 38.8 per cent. One woman said, "a week alone where fancy leads." Another said that she would want to spend the six months in study at college.

TABLE 54

LEISURE ACTIVITIES PREFERRED BY MASTER FARMERS' WIVES

Leisure activities	Number of wives	Percentage
Courses in art or music	52	13.3
Certain college courses	38	9.7
Courses along agricultural lines	63	16.2
Courses along some line of interest	50	12.9
Travel abroad	77	19.8
Travel in United States	256	65.4
A camping trip	53	13.6
Literary work (reading and writing)	44	11.3

i. Economic Interests of the Master Farmer's Wife

The Master Farmer's wife plays an important part in the economic life of the farm home. A total of 259 or 72.1 per cent of the entire group engage in enterprises that add to the family income. Generally these types of activities are outside of the regular duties of homemaking. Whether this work was necessary from the standpoint of making a living, or whether the farm women desired to do this work for other reasons, is not answered. A number of farm women believe that the farm should give such returns financially that it will not be necessary for the farmer's wife to add to the income. These women feel that the regular duties of the home are sufficient for the farm woman. On farm woman states: "I have kept the family well and happy. If a man with a $10,000 to $40,000 investment cannot keep his family without his wife contributing to the income, there is either something wrong with the man or with farming. My hobby is a flower garden." A Dakota woman states: "I have done everything on the farm, but run the tractor and the 12-foot binder, have been a general chore boy and hired man, and all goes to meet bills and provide conveniences for the house and barn." Another woman states: "I helped in all kinds of farm work excepting the planting of corn and the drilling of wheat. It saved a man." The following list gives the activities in which the farm women engaged, together with the number who engaged in each.

Poultry raising		229
Dairying		59
Gardening, fruits, vegetables		89
Gardening	59	
Fruit sales	17	
Sale of flowers	9	
Vegetable sales	4	
Community service and literary		10
Farm bureau director	3	
Judges at fairs	2	
Fair exhibits	2	
Farmers' Institute	1	
Literary	2	
Teaching		8
Music	5	
Public school	3	
Sewing		7
Office and secretary		5
Post Office	1	
Bookkeeping	1	
Farm bureau secretary	1	
Saleswoman	1	
Insurance company secretary	1	
Miscellaneous		14
Boarders	4	
Farm work	4	
Bees and honey	3	
Fresh meat	2	
Bread sales	1	

The total income from poultry is $32,515. The average for the 147 reporting this income was $425. The average income for the twenty-nine who reported income from flowers is $103. The total income reported from dairying is $17,388. The average is $511. The average income from the entire number who reported activities was $413.97. Actually this should be higher inasmuch as some did not report their income.

j. Hobbies of the Master Farmer's Wife

Many of the Master Farmers' wives have well defined interests which they call hobbies. In some instances the hobby is simply some phase of the work of the farm home that has been found especially enjoyable. In other instances the hobby is entirely apart and separate from the regular routine of the home. These hobbies add some very enjoyable touches to the home life of the farm woman. The list is of a varied nature and covers all phases of activities. Activities of a related nature will be grouped under one heading. A total of 155 or 42.5 per cent of the women named hobbies. Flower culture is by far the most common.

Vocational interests			**10**
Poultry raising		10	
Worthy home interest			**37**
Needle work		16	
Sewing	6		
Needle work	5		
Quilting	3		
Crocheting rugs	2		
Home beautification		9	
Home beautification	4		
Landscaping	3		
Interior decoration	2		
Cooking		7	
Canning fruits, etc.	4		
Cake baking	3		
Children		5	
Child study	2		
Home and children	1		
Child welfare	1		
Dependent children	1		
Ethical character		4	
Sunday School work	2		
Church work	1		
Loyal Temperance Legion	1		
Aesthetic interests			**82**
Music and art		12	
Music	7		
Art	5		
Literary		18	
Reading	14		
Writing	3		
Writing poetry	1		
Nature study, birds, flowers		4	

Flower growing, gardening		48	
Flower growing	38		
Gardening and flowers	6		
Home and flowers	2		
Growing roses	2		
Health			6
Travel	3		
Horse riding	1		
Health and happiness	1		
Summer cottage	1		
Community interests			7
Farm Bureau work	1		
Club work	1		
4-H club work	2		
Community work	3		
Miscellaneous			9
Charity and visiting sick	4		
Ladies aid	1		
Rocks and stones	1		
Stones of Europe	1		
Historical society	1		
Pets, fish, canaries, weak lambs	1		

2. THE MASTER FARMER'S CHILDREN

Among educators and sociologists as well as farm leaders, the number of children reared in the country, and educational opportunity provided for them, and their final vocational placement are matters of interest and vital concern. In this section of the study facts will be given with regard to children of Master Farmers' families and the following questions will be answered: What size of families do the Master Farmers rear? How does the size of families reared by Master Farmers compare with the size of those reared by their fathers? How do these families compare in size with those reared in cities? Is there any relationship between the size of the family reared and the educational status of the home? What education do these children receive? In what types of schools are they educated? What vocations do the sons and daughters of the Master Farmers enter?

a. The Number of Children Reared in the Master Farmer's Family

The number of children reared in the homes of Master Farmers is shown in Table 55 which also shows the number of children that were reared in the homes of the Master Farmers' fathers.

From the table it will be seen that only two of the Master Farmers' wives did not answer this item and that fourteen of the Master Farmers did not have children. The families having two or three children each comprise forty-five per cent of the entire number. Eighty-three families had two children each and eighty-one families had three children each. The number of Master Farmers having larger families gradually decreases until there are three families with nine children each, three with ten each, and four with eleven or more each. The total number of children was 1265. The average number of children for all the families reporting was 3.5. The average number of children for the 349 families having children was 3.6.

Rodenwold (15, p. 30) found that the average number of children in the fifty homes studied in the college community was 1.5. Lynd (12, p. 110) in the Middletown study found that forty business families averaged 4.7 persons each, and that the average in working families was 5.4 persons each. The family in the case of the Middletown

TABLE 55

NUMBER OF CHILDREN IN FAMILIES OF MASTER FARMERS COMPARED WITH NUMBER OF CHILDREN IN FAMILIES OF MASTER FARMERS' FATHERS

Number of children	Families of 365 Master Farmers		Families of 389 Master Farmers' fathers	
	Number	Percentage	Number	Percentage
None	14	3.8		
One	37	10.1	11	2.8
Two	83	22.8	28	7.2
Three	81	22.2	45	11.5
Four	58	15.9	38	9.7
Five	38	10.4	51	13.1
Six	16	4.4	56	14.4
Seven	15	4.1	41	10.5
Eight	9	2.5	37	9.5
Nine	3	0.8	28	7.2
Ten	3	0.8	22	5.7
Eleven or more	4	1.1	31	7.9
Not answering	2	0.6	1	0.3
Total	365*	99.5	389	99.8

Total number of children in the Master Farmers' families	1265
Average number to the family	3.5
Median number to the family	3.5
Total number of children in the families of Master Farmers' fathers	1863
Average number to the Master Farmers' fathers' families	5.8
Median number to the Master Farmers' fathers' families	6.4

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*Reports were returned by only 365 of 389 Master Farmers' wives.

study included parents, roomers, or persons living in the home. The 1920 census gives the average size of the family as 3.9 persons. For comparative purposes the three studies with parents included are as follows: Master Farmer study, 5.5 persons; college community study, 3.5 persons; Middletown 1920 census, 3.9. In comparison the family of the Master Farmer's father had an average of 5.8 children for the 389 families studied. With parents included, the family would have consisted of 7.8. Lynd (12, p. 110) gives the average size of the Middletown family in 1890 as 4.6 persons. The family of the Master Farmer's father as compared with that of the Master Farmer has decreased from an average of 5.8 children to that of 3.5 children to the family in one generation. It should be noted that in the case of the families of the Master Farmer's father, all had one or more children in them.

The average family in the United States in 1920 (20, p. 459) was 4.3 persons. This family according to the census includes other persons living in the home. In the present study no persons other than parents and children are included in the family. Goodsell (5, p. 493) quotes Dr. J. McKeen Cattell as follows: "The completed family of the modern scientific man is about 2, the surviving family about 1.8, and the surviving children 1.6. Twenty-two per cent of the families are childless; only one family in seventy-five is larger than six. The same conditions prevail with regard to other college graduates."

Goodsell (5, p. 491) gives the average number of children of 343 college bred women as 1.6 and the average of 313 non-college bred women as 1.9 children each. In the present study the difference in children between the lowest and the highest educational levels was one child. One family out of each seven had six children or more. More than one of each two of the Master Farmers' fathers reared families of more than six children. Less than four per cent of the families of Master Farmers are childless.

Table 56 shows the number of children in each of the 365 families in relation to the number of children reared respectively by each of their fathers. This table shows that all Master Farmers who were reared in families of less than three children each tend, on the average, to have larger families themselves. In all cases where the Master Farmers were reared in families of more than four children their own families tend to average smaller. There is very little tendency for Master Farmers from the larger families to rear larger families than Master Farmers from the smaller families.

TABLE 56

NUMBER OF CHILDREN IN THE FAMILY IN WHICH THE MASTER FARMER WAS REARED IN RELATION TO THE NUMBER OF CHILDREN IN HIS OWN FAMILY

	Master Farmer's families													
Children in families of Master Farmers' fathers	None	One	Two	Three	Four	Five	Six	Seven	Eight	Nine	Ten	11 or More	Not Ans.	To-tal	Per-cent-age
One	1	1	1	4	1				1					9	2.5
Two	3	1	7	10	1	2	1	1	1					27	7.4
Three	1	6	11	8	6	5	3	1			1			42	11.5
Four	1	5	11	2	9	4	3	1	1					37	10.1
Five		6	9	13	8	8		2	1					47	12.9
Six	4	8	11	11	6	1	3	3	1				1	49	13.4
Seven		5	8	10	5	3	3	2		2		1		39	10.7
Eight	1	1	5	9	9	4	1	1	4			1		36	9.9
Nine		1	9	6	2	5		1		1		1		27	7.4
Ten		2	4	3	5	3		1			1		2	21	5.8
11 or more	2	1	7	5	6	3	2	2			1	1		30	8.2
Not answered	1												1	1	0.3
Totals	14	37	83	81	58	38	16	15	9	3	3	4	4	365	100.2
Percentages	3.8	10.1	22.8	22.5	15.9	10.4	4.4	4.1	2.5	0.8	0.8	2	1	14	3.8

TABLE 57

EDUCATIONAL STATUS OF THE MOTHER IN RELATION TO THE NUMBER OF CHILDREN REARED

Educational status	None	One	Two	Three	Four	Five	Six	Seven	Eight	Nine	Ten	11 or more	Not ans.	To- tal	Ave- rage
	Number of children														
Elementary school training	5	9	26	31	25	22	9	8	2	1	2	4	4	148	3.8
High school training	7	14	31	24	15	9	3	5	5	1	1			115	3.1
1-3 yrs. college	1	7	12	14	10	5	2	2	1					54	3.1
College graduate	1	6	12	12	8	2	1			1				43	2.9
Not answered		1	2				1		1					5	
Total	14	37	83	81	58	38	16	15	9	3	3	4	4	365	

b. Educational Status of the Mother and the Number of Children to the Family

From Table 57 the number of children in the Master Farmers' families are given in relation to the educational status of the mother. The average number of children in the forty-three families where the mother was a college graduate was 2.9 each. There were fifty-four families in which the mother had from one to three years of college training; in these families the average number of children was 3.1 each. Where the mother had received some secondary education or graduated from high school, the 115 families averaged 3.1 children each. The 147 families where the mother did not have any education beyond the elementary school reared an average of 3.9 children each.

c. Ages and Education of Children

In reporting the ages and education of children, only 1166 children out of the total of 1265 were included. The other ninety-nine are not accounted for in either of these two items. The ages are as follows:

Age	Number of Children	Percentage
Under 6 years	60	5.1
6-14 years	242	20.7
14-19 years	231	19.8
19 years or more	633	54.3
	1166	99.9

There were 864 who were fourteen years of age or older. These from the standpoint of age had an opportunity for a high school education. A total of 534 or 61.8 per cent of the group over fourteen years of age graduated from high school. There are 167 or 19.3 per cent of the group now attending high school. Only 6.9 per cent or fifty-four dropped out of school with three years or less. The remaining 104 or 12.3 per cent are not accounted for and did not enter high school. Therefore, out of the group, eighty-one per cent have graduated from high school or are now in high school, seven per cent stopped during high school course, and twelve per cent failed to enter high school.

Many children of the Master Farmers have entered college. There are 633 who are over nineteen years of age. Of this group, 128 or twenty per cent are now in college. There are ninety-three or fourteen per cent who discontinued their college work at the end of three years or before. Those who graduated from college total 208 or 32.2 per cent. A number almost equal to this group, 204 or 32.2 per cent, did not enter college. Thus of the Master Farmers' children one-third did not enter college, one-third graduated from college or discontinued their college work before three years of it. A total of 66.8 per cent of the entire group are now in college, or have had some college training, or graduated from college. Thirty or 4.7 per cent of the entire group have graduated from a master's degree course. A number of these have also completed courses for doctor's degrees in various lines.

There were seventy-seven or 37 per cent of the 208 college graduates who graduated from an agricultural college. Of the thirty who received master's degrees eleven or 36.6 per cent received them from agricultural colleges. Thirty-eight per cent or eighty-four of the total number of 221 who are now in college, or did not complete a college course, registered in an agricultural institution.

d. Vocations Chosen by Master Farmers' Children

There were 633 children of Master Farmers over nineteen years of age, of which number the vocations of 526 are given. The 107 who are not accounted for have probably not yet chosen a vocation. Table 36 shows the number that have entered each vocation. There are three occupations which 87.8 per cent of the total group have entered. These are as follows: agriculture with 291 or 55.3 per cent; salesmanship and offices, etc., with 53 or 10.1 per cent; and the professions with 118 or 22.4 per cent. The vocations of banking, government service, and merchant were each chosen by from two to three per cent of the group. Railroad employment and skilled trades, respectively, claimed 1.1 per cent and 1.7 per cent. Unskilled labor, mining, and the building trades each received only 0.4 per cent of the group. Only 0.6 per cent entered manufacturing. A comparative study of the occupations chosen by the children in the families of the Master Farmers' fathers shows great similarity. Only one real transfer took place. Fifteen per cent less of the Master Farmers' children entered agriculture than the children of the previous generation. Of this fifteen per cent, approximately five per cent was added to the agent, salesmanship group, and ten per cent to the professional group. The variation in other respects is very slight.

CHAPTER VIII

DISCUSSION

The facts presented in the previous chapters will be briefly discussed as to interpretations that seem valid. This discussion will be concerned, in the main, with the relationships that exist between the various activities of the Master Farmer and the education and training that is necessary to make the Master Farmer efficient in these activities. Since many of the Master Farmers had no training in schools beyond the elementary grades special attention will be given to the sources from which they receive education as adults.

1. Experience and Agricultural Interests

Many of the Master Farmers began their agricultural activities as farm hands. Table 3 shows that 152 or 39 per cent of the whole group started in this manner. Table 4 shows that 196 or 51.3 per cent rented farms for a period of time averaging 8.9 years each. The fact that many of these men have been farm hands and farm renters helps to explain why the Master Farmers are men of rather mature years. The average age is fifty-two years. The average number of years spent in farming is 29.5. There is but one of the group who is less than thirty years of age, and only eleven per cent are less than forty-one years. A further explanation of the maturity of age of these men lies in the fact that the Master Farmer movement was not started until 1925. Undoubtedly some of the present Master Farmers would have qualified for membership much earlier had such an organization been in existence. The explanation, however, does not fully account for the younger men not being selected. For, if the younger men are as efficient as the more mature men at least a proportionate number of them would be chosen. It is likely that in the future many younger men will acquire, through training, the efficiency that these men have been able to gain only through long years of experience.

The acreages farmed, according to Table 5 are generally related to the net incomes of farmers. However, the type of farming followed is probably much more closely related to the net income than is the number of acres. Fruit farming, poultry farming, truck farming, and similar types bring in larger incomes than general farming. The farms of the Master Farmers are more than three times as large as the farms operated by the average farmer of the United States. The income returns to individual Master Farmers should, therefore, be much larger than the returns to the average farmer.

According to the number of Master Farmers engaged in livestock as a major industry, hog raising ranks first; dairying, second; beef cattle, third; poultry raising, fourth; sheep raising, fifth; and horse breeding, sixth. Many of these same types of farming are followed by other Master Farmers as minor interests. Including the major and minor interests, over seventy-two per cent raise poultry; seventy-one per cent, hogs; 60.4 per cent, dairy cattle; but only 13.1 per cent breed horses. These figures indicate the value which these Master Farmers place on these livestock interests. Horse breeding which was formerly of great importance, finds few Master Farmers interested in it. This is probably explained by the fact that horse power has been largely supplanted by motor power. The average Master Farmer raises more than three kinds of livestock either as a major or minor interest. Over fifty-six per cent of the Master Farmers raise purebred livestock. Many of these herds are of high quality and contain some of the best animals of their respective breeds. Many of these animals are sold for breeding purposes and therefore bring price returns far above those received by the average farmer. In many instances eggs and milk of high quality are disposed of directly to hotels and other special markets. In all these cases where production and marketing of high grade livestock are carried on, highly specialized labor is necessary. The breeding and developing of high grade livestock requires unusual ability and efficient training in animal husbandry. Such training is gained largely through schools and colleges or through the various forms of extension service from our institutions of higher education.

Among the farm crops, corn is most commonly raised. Table 11 shows that it is grown by 86.2 per cent of the Master Farmers; wheat is second with 52.5 per cent; oats third with 50.1 per cent. Legumes are grown by 51.3 per cent. The farm crops grown as a major interest, average more than three to each Master Farmer. When those of lesser importance are added, the average for each farmer is more than six crops. Because of crop failures and low prices it would seem that Master Farmers generally believe that the raising of a wide range of crops insures a more certain income than specialization in a single crop. This may account for the fact that many men who formerly raised cotton only are at present engaged in diversified farming. Likewise many of the one-crop growers of corn and wheat have become general farmers. Not infrequently, even these general farmers specialize in one or more crops or types of livestock. It is not unusual to find that these farmers derive most of their income from these special farm interests rather than from their general farming. However, in the case of some who farm intensively, specialization is usually the rule. This is evidently the case with regard to growers of fruits, vegetables, and similar types of farming. Where specialized farming is practiced or special crops are grown, these crops are often of unusual quality. Such grains and fruits bring premium prices to the grower. The production of grain and seeds of quality demand special knowledge and training with regard to plant breeding and soil fertility.

Perhaps one of the best measures of the ability of a farmer is that he is able to operate a farm for years and still have a soil more fertile than when he began farming. This the Master Farmer has done. The average yield of corn of the Master Farmer is now 51.6 per cent above the yield which the same farm produced when he started farming. The present yield is ninety-two per cent higher than the average acre yield of corn in the United States. Similarly, the present wheat yield has been raised 52.6 per cent and is now 93.3 per cent above the average acre yield of wheat in the United States. The number of pounds of cotton per acre raised by the Master Farmer is 35.8 per cent higher than the average yield for the United States. These crop yields are probably the most practical measures of soil productivity. While in many states farms are being abandoned because of depleted soil fertility, in these same states the Master Farmers have purchased these low producing farms and have made them productive far beyond the average. The implications of these facts with regard to crop productivity and agriculture in general are undoubtedly many.

Perhaps most serious of these implications is the effect that increased production on the part of many farmers will have on the price levels of the products. It is evident that many other farmers will follow the Master Farmers in methods of soil fertility and the resulting increasing crop production. The constant training in agriculture tends to increase production. The Master Farmer is demanding education not only with regard to methods of production, but also for the purpose of controlling production and for the systematic marketing of these products. Education for production alone will destroy even the present low levels of farm products. Unless farmers are educated to organize and coöperate with other farmers, both the efficient high-producing farmer and the unskilled low-producing farmer are alike menaces to the welfare of farm people. Only an education in terms of national needs as well as world needs will be able to solve the problems of production.

2. Financial Interests of the Master Farmer

The importance of the financial side of farming is recognized when it is known that the average Master Farmer has a capital investment amounting to $42,000. The average gross income of those reporting is $11,567. Ten individuals report a gross income of less than $3000 and seven individuals of more than $50,000 each. The average net income (which is interpreted as the gross income less the taxes and general expenses of operation) is $3752. The highest net income is reported at $22,500.

The meaning of these figures can be brought out by a comparison with the capital investment of the average Iowa grocery store. The average grocery store of Iowa, according to a study by Bristol (3, p. 68), has a total cash capital outlay of $7450. The grocery business requires a considerable amount of ability in the handling of funds, and it is generally believed that the keeping of accounts is a necessary requirement of an efficient grocer. The average Master Farmer has a capital investment of more than five times as much as the average grocer of Iowa. The capital invested in certain other kinds of business of the ordinary town may be larger, but will probably compare favorably with that invested in the grocery business. Generally, it has been assumed that the farmer need not be efficient in methods of business and accounting. But it seems that efficiency in the handling of finances is much more necessary for the farmer than for many other vocations. One concludes, therefore, that if the Master Farmer is to be efficient in handling farm accounts, his preparation should include training in this phase of education.

The two groups of farmers which had the least money at the beginning had the highest average net incomes of the groups. In the case of inherited wealth, the 115 individuals who inherited nothing had the highest average income of the entire group. The lack of capital at the beginning may have been, in many cases, an incentive to greater effort and more efficient production. In many cases it would seem the presence of capital did not inspire an equal effort. Evidently the lack of capital did not prevent these men from becoming unusually good farmers. One may conclude that these facts indicate little positive relationship between either what the farmer started with or what he inherited and his present income.

In the families where the Master Farmer was the only child, the average amount of wealth inherited was $7350. Where there were eleven children or more, the amount inherited by each child was $2450. This difference may not mean a real advantage. According to net incomes, however, in six cases where there was only one child in the family, the average net income is $4166, and in the thirty cases where there were eleven children or more, the average net income is $3888 each. The difference in income is small compared with the difference in inheritance. This difference may be partly accounted for because of the smaller number of cases in the one-child group.

Table 26 shows greater individual returns for the larger investments, but it also shows that a much lesser financial return was made on the larger investments than on the smaller. These returns range from 14.9 per cent on $10,000 to $20,000 investments, to 5.1 per cent on the highest investment. Probably less personal care was given to farming operations in case of larger investments than was given in the case of the smaller investments. Some of the larger investments were large farms and ranches where much hired help was required. The farming was therefore less efficient.

It is difficult to determine to what extent education is related to income. There are many factors involved. Table 27 shows that the highest average net income was $4214, and it went to men with master's degrees. The next highest average net income which was $4013 belonged to the individuals of less than eighth grade training. Those who had only an eighth grade education received a net income of $3940 each, while the group that had a complete college training received $3918 each. Table 28 shows that the two groups of most mature age have a low percentage of college training. From this it is evident that the college trained men are younger and have not farmed as long as the others. Perhaps one safe conclusion that may be drawn is that the college education has not been a hindrance to the financial success of these men. Although the college men are younger, their incomes measure up with those who have farmed for a longer time. This fact in itself may be significant. Table 28 shows that nearly eighteen per cent of the Master Farmers of the age groups above fifty years received some college training, while of the age groups below fifty years about forty-one per cent received some college training. This signifies a much higher educational status for the younger men. This is probably because of the prevalence of better educational facilities in later years for farm people.

The date of the purchase of land has had little or nothing to do with the success of the Master Farmer as measured by his net income. Although the purchase price of land was much lower at earlier dates, this purchase price at lower levels of cost does not seem to have affected the income. The men, though fewer, who purchased land at the higher prices have net incomes ranging from $4000 to $10,000 each. This group shows few low incomes and contains a large number of the higher incomes. It is probable that the higher-priced land has been used for more specialized types of farming and is located adjacent to cities with good marketing advantages. In a number of instances the higher priced land was purchased where good markets were available, and was then devoted to the raising of fruit, vegetables, or poultry.

3. Other Interests of Master Farmers

From the fact that 88.4 per cent of the Master Farmers are members of the American Farm Bureau Federation, the Grange, or the Farmers' Union, one may gain an idea of the value these men attach to this type of adult instruction. In the Kansas study Wilson and Clapp (30, p. 13) found that among the group of farmers studied only thirty-one per cent were members of the Farm Bureau. One might assume that good farmers such as the Master Farmers would not desire additional training, but the evidence from the present study does not indicate this. In the Kansas study sixty-nine per cent of the farmers did not join the Farm Bureau and evidently felt no need for the instruction it gave, even though it was available to them. Among the Master Farmers not only are 88.4 per cent members of these organizations, but 85.4 per cent attend meetings an average of fourteen times a year. As these meetings are usually held monthly except for special meetings, a very unusual interest on the part of Master Farmers is manifest. In addition to these meetings, sixty-five per cent of them attend coöperative meetings, averaging ten times a year.

It is interesting to consider the philosophy back of the attendance of good farmers, and the non-attendance or poor attendance of average farmers at farm meetings. It may be a matter of the degree of interest, training, ability, or vision of which the individual is capable. Certainly it appears that one who has the greatest need for training realizes it least and fails to avail himself of opportunities for training. The efficient Master Farmer, on the other hand, evidently avails himself of every opportunity for training.

A study of the nature of the organization, local and state, of which the Master Farmer is a member, indicates the broad possibilities of service that are open to farmers in general provided they have the ability and the training necessary to participate in them. Farm life will probably be as dull and barren of interest as the individuals who make it up are barren of thought and mental ability. On the other hand, the avenues open for intelligent participation in rural life and organizations are almost unlimited. However, the insights into the great interests available to rural people must usually be awakened by leadership from outside of the community.

Religion, as measured by church membership and church attendance, forms a very vital part of the life of the Master Farmers. The church membership of farmers generally is not as high as is found among these farmers. More than ninety per cent of the Master Farmers are church attendants and this number attends three Sundays out of four. Sunday Schools and similar meetings are attended by more than sixty per cent of the group an average of more than forty-two times a year. To no other leisure activity does the Master Farmer devote as much time as to the religious interests. Eighty-two per cent of the group are church members. In the case of the Master Farmers' wives, 89.1 per cent are members of churches. The other facts regarding church and Sunday School attendance of the Master Farmers' wives correspond closely to those of the Master Farmer. The location of the church is not important, but the membership and attendance are very important. The facts here indicate that not only the Master Farmers and their wives are interested in the church, but the children are also. At least eighty-five per cent of the children over fourteen years of age are church members. This percentage of membership is larger than that of the fathers, but not quite as large as that of the mothers. The inference from these facts is that the younger generation may undoubtedly assume the leadership of the religious organizations of their communities.

Perhaps the motion pictures and theaters are newer features of entertainment and this may, in part, account for the fact that only fifty per cent of the group attends them. Furthermore, this attendance is less than once a month. The average attendance for the entire group would be less than five times a year. Some of the group have indicated that they have more valuable ways of spending the small amount of leisure they can find. Perhaps the thought in the minds of many of these farm people is that they do not desire the types of entertainment shown by many of the pictures, hence do not care to attend or have their children attend. A study of the leisure activities most commonly attended by these farm people, leads one to the conclusion that they spend their leisure in a wholesome manner. Trips to various places in the United States or abroad are common. More than thirty-six per cent of the group spend some time in hunting or fishing.

These facts indicate that the life and character of the Master Farmer and his family are very much influenced by the church. The religious interest is evidently the strongest factor in determining his morals and character. The Bible is named as the most influential book in the homes of 159 Master Farmers. This implies that the children of the home have had contact with religious influences in the home as well as in the church. There are probably a number of reasons for the interest these rural homes show toward religion. The country does not have as many different organizations to attract interest away from the church as the city has. This may, however, be changed by the coming of the automobile. It is too early as yet to predict how the automobile may affect this phase of rural life. The country family has acted more as a unit than the city family. The children would naturally attend more to the interests the parents think of value. A factor probably more important than these mentioned is a deep religious attitude that has characterized many of the most substantial farm people. Country life seems to encourage this attitude of mind more than the excitement of the city.

The trend of country people to attend churches located in the city or town is shown by the number attending in smaller towns. This, however, may be a healthy indication rather than one of weakness for the country church. Only twenty-five per cent of the Master Farmers attend churches in the open country. These churches located in towns generally have a larger attendance and are therefore able to support better qualified leadership.

The desire to do farming unusually well has grown up out of the inspiration received from men who have done well in farming, the challenge of failure, or the challenge of successes in other vocations.

In some manner or other, most of these men look back to some incident or influence that has affected them in an unusual manner. The two most potent influences of all these are: doing as big a job as other men in other industries, and the desire to do well anything undertaken. The replies of these Master Farmers indicate that the unusual can be done in agriculture the same as in other lines when men of ability are inspired to do it. Success in farming as in other vocations is seemingly dependent on seeing a vision of what may be done.

4. The Education of the Master Farmer and His Family

When the 224 Master Farmers speak of education as the solution of the agricultural problem, they probably have in mind education in schools and colleges, as well as all means of education and training of the farmer during the period of adult life. While certain of the farmers feel that a college training gave them little help in farming, a great many believe that the college education and training was a real source of help and inspiration to them. Just what help came from a college training would perhaps be difficult to say. In the present study, however, 14.4 per cent were college graduates while in the study of Iowa farmers made by Professor Stewart only 2.3 per cent were. It is important to note that among the Master Farmers there are more than six times as many college graduates as among the Iowa farmers. Professor Stewart found that about ten per cent had some college training, while in the present study 27.6 per cent had. These figures would indicate a relationship between college training and efficiency in farming in the case of the Master Farmers. While 49.3 per cent had no training beyond the eighth grade, it is probably far above the amount of schooling generally received at that time when approximately only five per cent of the people had training beyond the elementary grades. The Master Farmers who had training in agriculture were very few. Only sixty took training in an agricultural college. Twenty graduated from a four-year course and five received master's degrees. No figures are available for comparison with these. Short courses in agriculture were utilized by 103 as a means of furthering training in agriculture. The Master Farmer believes that education is helpful in farming. Table 39 shows that 68.1 per cent of the Master Farmers believe a complete college education is an essential preparation for farming. A number of them desire only two years of college training, probably because they fear the boys would leave the farm if four years were given. Actually, 87.4 per cent desire two years or more of college training. The Master Farmers have given a complete college course or some college training to 68.8 per cent of all of their children over nineteen years of age. Probably finances or the wishes of the children prevented the percentage being larger. However, the accomplishment is not far from the desire expressed in regard to education for the son. It may be inferred that the Master Farmer believes that if agriculture is to compete with other vocations successfully, it must be done by trained farmers. It must be a mental competition. Either the farmers must be educated and trained to solve their own problems or they must allow corporation farming to replace the present farm-home unit of agriculture. One unusual farmer said he hoped corporation farming and resulting peasantry would not come as the farmer was just learning to solve his own problems. The Master Farmers feel that education is the solution to the farm problem.

The desire of the Master Farmers for a higher education for their children is significant. Undoubtedly many other farmers share the same desire with regard to their children. If education is the key to knowledge, efficiency, skill, and culture the farmers feel that it shall not be denied their children. What this may mean for college and university attendance can only be imagined. It probably indicates that the junior college movement has only started and other facilities of colleges and universities will have to be expanded.

In recent years new discoveries of science have brought many changes in agricultural practices. The successful farmer has many adjustments to make. Although almost 90 per cent of the farmers are over forty-one years of age, they have been successful in adjusting themselves to the new conditions that confront them. Table 43 shows that these men believed that they received the greatest number of their new ideas after they were thirty years of age and only a slightly smaller percentage of the men believed they received the largest number of new farm practices after they were forty-five years of age. This would indicate that at least up to the age of sixty years, the Master Farmers take on new practices with facility. Among these men there does not seem to be only a short definite period in early life during which education and training may be received with profit. With regard to adult education in its various forms, it seems that these facts have very important implications. Education of both a vocational and a cultural nature will be made available to adults whenever they desire such courses. The attitude of these mature men is such that they are interested in the new things that education and science have to offer. A further implication is that their minds are also capable of taking on these new things in the later periods of life. There are three main sources other than reading from which the farmer receives his new farm practices. As shown in Table 44 the Master Farmer believes that in regard to seed grains, hog raising, dairy cattle, beef cattle, better herd sires, and sheep he gets most of his information from his own experimentation, and second from the farm bureau, and last from special days at colleges. In most cases, the number who indicated these as first did so by large majorities. With regard to insect control, poultry, legumes, fertilizers, spraying, and coöperative marketing, by far the largest group indicate the farm bureau as the most common source of these practices. The farm bureau acts as a source from which the newer and more scientific information is received. Where the information may be obtained from reading, they evidently do more of their own experimentation. There are a smaller number who attend the short courses and the special days at the agricultural colleges.

With regard to reading sources, in Table 45 the farm papers are indicated as the most important source for seven subjects. These are seeds, dairy cattle, beef cattle, better sires, poultry, soil fertility, and coöperative marketing. It seems that certain of the practices are more suited to treatment through the papers, while others are more suited for bulletins. A second consideration is that certain types of farmers read the more scientific material of the bulletins while others prefer the more easily read and the less technical material of the farm papers. With regard to the remaining five items, the table shows that bulletins were checked most often. In some cases almost the same numbers indicated each. Books were checked as first by only a comparatively small number. Books are usually either not up-to-date or not available for use when desired.

The men who became Master Farmers are in the main sons of farmers, more than eighty-eight per cent of their fathers having followed this occupation. Three per cent of their fathers belonged to the building trades and 2.8 per cent to the professions. Only twelve per cent of the sons whose fathers belonged to other vocations changed to farming and became Master Farmers. Most of the Master Farmers were, therefore, trained in farming from childhood. They grew up familiar with farm life.

More than 69.8 per cent of the Master Farmers and their brothers and sisters entered agriculture. Ten per cent entered the professions.

These with those from two additional vocations, merchants and building trades, include nearly ninety per cent of the brothers and sisters. Among the children of the Master Farmers, agriculture, professions, and salesmanship include 87.8 per cent of the group. According to these facts, children of Master Farmers and brothers and sisters of Master Farmers have gone most largely into agriculture, and next into the professions. Few have entered other occupations. The professions require the highest educational levels of all vocations. There is evidence that the same type of abilities are important to success in either agriculture or the professions.

The influence named most commonly as leading the Master Farmers to choose farming are being raised on the farm and love of farm life. Even being raised on the farm does not necessarily indicate that these individuals did not like farm life, since 255 or 65 per cent gave as one factor in choosing farm life their love for farm life. No other incentive is probably as effective in producing successful farmers as this. Many of the workers in mechanical trades or vocations of other kinds have no interest in the work they do. Most Master Farmers love their work and enjoy any study that will make them efficient in it.

Table 42 shows that the educational attainments of the Master Farmers' wives are higher than those of their husbands. Nearly sixty per cent of the farm women have education beyond the elementary grades, while slightly more than fifty per cent of the Master Farmers have reached the same levels. School teaching was the work of 124 or 33.9 per cent of the Master Farmers' wives before becoming homemakers. A better opportunity was probably afforded them for schooling because of less homework or because they desired to become teachers. The farm women generally feel that the training they have had is insufficient and in many cases did not cover the problems of vital interest to them. Only 26.6 per cent have had some college training, but according to Table 47 seventy-three per cent of the farm women desired two or more years of college training and sixty-two per cent desired a full college course either in a liberal arts or an agricultural college. The desire for more education and training on the part of the Master Farmers and their wives probably indicates their inability to meet all the vital problems that face them in farm life. The need of other farmers for education is evidently much greater than that of the Master Farmers. With regard to subjects that these farm women would find most helpful, Table 48 shows these have to do with clothing, food, and the rearing of children. In no case have more than thirty-three per cent of these women received training in these subjects. Probably administrators of education were to blame that these courses were not generally provided. There are even today only a few institutions where girls may find child and parent training in the curriculum. To what extent it may be given in institutions of lower grade than a university is uncertain. But if it is to be of service to the rural people, the secondary schools and colleges must offer these subjects. Unusual opportunities for the utilization of an individual's ability may be found in the vocation of farm home-making.

The type of school most suitable for the training of country boys and girls is designated as the consolidated school by 258 or 66.2 per cent of the Master Farmers. The rural school and the town high school are the choice of 23.1 per cent. Only 6.4 per cent indicate the one-room school. At least 90 per cent of the Master Farmers desire an education for farm children that the one-room rural school cannot give. The consolidated school is checked by 66.2 per cent of the group. Probably two-thirds of all rural children of the United States attend the one-room rural schools. In most states the immaturity of age, the inefficient training, and the inexperience of those who teach in these schools are such that the rural children are handicapped in competition with children from other systems of education. Dr. Price (13, pp. 54-84) in his study of Iowa teachers, says that thirty-two per cent of the rural teachers of Iowa had no training other than that offered in a normal training course in a high school and that training was administered to them at an age generally ranging from sixteen to eighteen years. The study by Price shows further that 26.6 per cent of the Iowa rural teachers had no previous teaching experience. These figures probably represent the teaching conditions of the one-room schools in general. It is doubtful if higher salaries or higher training requirements will ever make the one-room rural school other than a practice school for beginning teachers. Although two-thirds of the Master Farmers desire consolidated schools for country boys and girls this type of school will probably not come until there is proper federal or state aid based on the educational needs of the school districts.

The modern farm home as represented by the home of the Master Farmer, is the constant recipient of education from many sources, such as farm bureau meetings, women's clubs, books, magazines, farm, daily, and religious papers. These are forms of adult education, but in some instances are of little value because of the unsystematic nature of the material. Certain of the Master Farmers and their wives have stated that they desire courses of a cultural nature to be studied in a systematic way. Just how many would avail themselves of such courses is not known. However, when asked to indicate how they would spend six months of leisure if they had it, 67.4 per cent of the Master Farmers' wives preferred the study of college courses, research work, art, music, or literary work. This may be interpreted to mean that they desire other studies than those simply of a vocational nature. The wide range of meetings, books, and papers in which the farm home is interested may be interpreted as indicating a desire for continuous education and training on the part of the Master Farmer and his family.

A study of the number of generations that farms have been in the ownership of families shows that nearly fifty-five per cent of the farms have been in family ownership only during the present generation and an additional twenty-six per cent for two generations. These facts do not indicate great stability for agriculture. Probably many of the ills of agriculture are an outgrowth of the lack of tenure of farm families. More stability of farm ownership would do much to solve the situations that confront the rural people.

The farmers have indicated that they believe education and cooperative marketing will do most to solve the farm problem. The implication is that the solution of the farm problem is probably in the hands of the farmers themselves. Training and vision on the part of farmers will be the only permanent solution of the problem. Certain of the farmers believe that the solution will be reached when the surplus number of farmers are driven from the farm. This view point does not look hopeful, for with new inventions constant streams of farm people will have to enter other already overcrowded vocations. This being true nearly ten per cent of the farm population should enter some other occupation. It seems likely that if the present plans of the Federal Farm Board fail farm relief will not be secured until the farmers are trained to organize and solve their own problems.

Overproduction is the real problem of farm life to-day. While overproduction is occurring, this study shows that fifty per cent of the farmers work from twelve to sixteen hours daily. As measured by the hours of skilled labor the farmer does from one and one-half to two days' work in one. The inventory of economic work done by farm wives shows that they add greatly to farm production. In addition to these factors, the farm children assist very much in useful and productive farm work. These various factors assist in overproduction that floods the market. It is probable that the conditions here mentioned exist in a majority of the six million farm homes of the nation. One solution, not likely to be accepted, would be that the farmers and farm homes generally devote shorter hours to work and devote the leisure time to study and wholesome recreation. Indeed, if the overproduction is to cease, some such plan must be generally accepted. Adult education of various types would seem to afford one of the ways of employing this time so that it will not cause production in other lines and will be of value to the individual. Just when the rural people as a whole will awaken to the situation is very uncertain. However, the problem cannot be solved until the great mass of the farm people have the proper viewpoint in regard to overproduction. Shorter working hours will produce greater incomes. Education alone can solve this and other farm problems.

The size of the family has decreased from 5.8 for that of the Master Farmer's father to 3.5 for that of the Master Farmer himself. Where there were thirty-one families with eleven or more children in the case of the 389 families of the Master Farmer's father, there were only four families of such size in the 365 Master Farmers' families. Similarly, there was a general decrease in the size of all families except in those of three children or less. Table 56 shows that the Master Farmers who were members of families of eleven children or more have an average of only 3.8 children in their own families. Those who were the only child of the family average three children in their own families. Where the families of the Master Farmers' fathers have an average of eight children, the Master Farmers' own families average 4.1 children each. Although families are generally smaller now, Master Farmers from larger families have a slightly larger number of children in their own families than Master Farmers from smaller families.

The Master Farmer's family including children and parents averages 5.5 persons. Rodenwald found the family to consist of 3.5 persons and Lynd, in the Middletown study, found the family group to consist of 3.9 persons. The city families have approximately one-half as many children as the Master Farmers' families. Probably higher standards of living are the greatest factors in the decrease in the size of families. Table 57 shows that there was a constant decrease in the size of the families inversely proportional to the degree of education of the mother. However, the difference is only one child per family. The families of those with only elementary education average

3.9 children, and families with a college education average 2.9 children each. These families, probably desiring to provide better education and training for their children, have not reared as many children. However, the difference in sizes of families is not large.

CHAPTER IX

GENERAL SUMMARY

1. Summary of Facts

1. From a total of 594 Master Farmers located in 28 states, questionnaires were returned by 389 or 65.3 per cent of the Master Farmers and by 365 or sixty-two per cent of the wives of Master Farmers.
2. Agriculture was the occupation followed by 88.7 per cent of the fathers of Master Farmers and by 75 per cent of the fathers of wives of Master Farmers.
3. The 389 families in which the Master Farmers were reared averaged 5.8 children each. Thirty-one families reared eleven or more children each. The median family contained 8.4 children.
4. The vocation of agriculture was chosen by 69.8 per cent of the 1863 children in the families of the Master Farmers' fathers; the professions were chosen by 10.1 per cent; and 5.1 per cent chose the vocation of office worker or salesman.
5. The deciding influences that led these men to choose farming as a vocation were as follows: the love of farm life by 65 per cent of the group; being reared on a farm by 58 per cent of the group; raising some crop or livestock in partnership with their fathers by eleven per cent; and college influences by 8.4 per cent.
6. The two influences that led the greatest number of these men to do unusual farming were the desire to do well anything undertaken and the desire to do as competent a job in farming as other leaders do in other lines. The former was named by 56.5 per cent and the latter by 22.6 per cent.
7. The average age of the Master Farmer is 52 years, the median age is 53.3 years. The group under 40 years contains only 10.3 per cent of the number; 22.1 per cent are above 60 years of age; and 67.1 per cent are from 40 to 60 years.
8. More than 15 per cent of the Master Farmers served as farm hands for one or two years, 3.3 per cent served eleven years or

more, 29.6 per cent served from two to ten years each. A total of 61.2 per cent did not work as farm hands. The average years of those who did serve in such capacity was 4.5.

9. The percentage of Master Farmers who started farming as renters was 51.4. The number who rented from one to two years was 9 per cent, the number who rented for eleven years or more was 13.6 per cent. The number who rented from two to ten years was 27.8 per cent. The average number of years these men rented farms was 8.9.
10. The average Master Farmer has been engaged in farming 29.4 years; only 1.8 per cent have spent less than ten years; 4.8 per cent spent from 50 to 60 years in farming; and 61.1 per cent spent from 20 to 40 years in farming.
11. Previous to entering farming, 17.5 per cent of the group had been school teachers, and 17.5 per cent had entered some occupation other than teaching.
12. Two farmers operate farms of less than thirty acres each, and two operate farms of more than 6000 acres each. The median-size farm contains 277 acres, the average-size farm contains 506 acres. The median-size farm of Master Farmers in the northern states contains 244 acres while in the south it contains 522 acres. The average of all farms in the United States is 145 acres.
13. Land is rented by 125 of these farmers, the average being 214 acres, and the average for the entire group 69 acres.
14. The average length of the Master Farmer's day is 11 hours and 20 minutes. The median length is 12 hours and 5 minutes. Only 15.1 per cent spend 9 hours or less in daily farm work.
15. Hog raising is carried on by 71 per cent, dairying by 60.4 per cent, poultry raising by 72.1 per cent, sheep raising by 24.6 per cent, and horse breeding by 13.1 per cent of the group.
16. Corn, oats, wheat, and legumes are grown by more than half of the Master Farmers. Cotton is grown by 18.2 per cent, truck crops by 17.6 per cent, and fruits by less than 20 per cent.
17. The average corn yield for 299 individuals is 53 bushels per acre. This is more than 50 per cent increase over the 35 bushel average raised on these same farms when these men started farming. The average corn yield for the United States is 28 bushels per acre.
18. The Master Farmer's wheat yield, when he started farming was

19 bushels per acre, his average is now 29 bushels. The average for the United States is 15 bushels.

19. The Master Farmers who grow cotton raise an average of 748 pounds per acre; this is 358 per cent above the cotton average for the United States, which is 163 pounds per acre.
20. The average farm investment of the Master Farmer is about $42,000; the average investment of the ordinary Iowa grocer is $7450. The income from investments averaging $100,000 is 5.1 per cent, the income from farm investments averaging $15,000 is 14.7 per cent. The average return is about 8.7 per cent.
21. The average net income of the Master Farmer is $3752, the median income is $3181. The first quartile is $2236, the third quartile is $4568. An income of less than $2000 was received by 15.9 per cent, and 8.9 per cent received an income of more than $6000. The average income of farmers according to a number of studies is $883.
22. The average gross income of Master Farmers is $11,567, the median gross income is $8119.
23. The average net income of Master Farmers who started with nothing or less than $500 cash is above $4000, those who started with larger amounts have smaller average incomes. A similar relationship prevails with regard to money inherited and net income.
24. Where families reared only one child, the amount inherited was $7350, where eleven or more were reared the average child inherited $2454. However, the decrease in inheritance is not regularly inversely proportioned to the size of the family, but a relationship exists.
25. The younger men with college training generally have incomes equal to or above the incomes of other groups.
26. The larger acreages generally produce larger incomes, but where small acreages are farmed intensively the highest incomes are received.
27. Incomes tend to increase with higher education and with years of experience in farming.
28. The solution of the farm problem is indicated by 57.6 per cent of the Master Farmers as education, by 4.3 per cent as farmer-owned coöperatives, by 43.2 per cent as economical production, and 29.8 per cent as surplus control.

29. The extent of education of 49.3 per cent of the Master Farmers was eighth grade or less; that of 21.9 per cent was part of or a complete high school training; 13.3 per cent had one to three years of college training; 14.3 per cent completed a college course; and nine or 2.3 per cent had received the master's degree.
30. Two hundred thirty or 59.8 per cent received no agricultural training in schools; 26 per cent attended agricultural short courses; 3.8 per cent received one year of college training; 3 per cent two years; 2.1 per cent three years; 5.1 per cent four years; and 1.3 per cent received the master's degree in science.
31. Sixty-three per cent of the Master Farmers or 245 desire a complete agricultural course for their sons if they are to be farmers; 17.3 per cent desire a two-year agricultural course in college; 5.1 per cent desire a liberal arts course; 1.8 per cent two years in a liberal arts college. Only 7.6 per cent believe that a high school training is sufficient, and only one believes that elementary training prepares the boy for farm life.
32. Training in a consolidated grade and high school is desired by 66.2 per cent of the group; 23.1 per cent desired the training in the one-room school and the town high school; 6.4 per cent, however, indicated training as received from the one-room country school as a preparation for rural life.
33. Only 11 per cent of the Master Farmers believed that they rereceived the most of their farm practices before they were 30 years of age; about 80 per cent of those eligible from the standpoint of age believed that they received these practices between the years of 30 to 45; and a little less than 50 per cent of those who had lived through all three periods believed the greatest number of new practices were received after they were past 45 years of age.
34. Education from various sources during the adult period of life is largely responsible for the success of many Master Farmers.
35. There are 281 or 72.3 per cent who are members of the American Farm Bureau Federation; 92 or 23.7 per cent are members of the Grange; and 74 or 19.2 per cent are members of the Farmers' Union. The remaining 49 are members of other farm organizations.
36. Ninety-one per cent of the Master Farmers attend church 39 times yearly. Church membership is held by 82.8 per cent of the group. Churches located in the country are attended by 25.3

per cent; 56.3 per cent attend churches in small towns; and 14.9 per cent attend churches in cities of 5000 or more.

37. Farm papers were indicated as the source of reading from which 31.7 per cent of the Master Farmers received the greatest number of new ideas; 29.1 per cent indicated farm bulletins; and 3.7 per cent named books.

38. Outside of reading, 29 per cent named the Farm Bureau; 27.1 per cent their own experience; and 9.5 per cent special days at college.

39. The home library of the average Master Farmer contains 175 volumes. Sixty-seven homes had less than 25 books. The home receives 6.5 farm papers, 4 general magazines, and 2 daily papers; and 75 per cent of the homes receive one or more religious papers.

40. An elementary training was the extent of the education of 40.3 per cent of the wives of Master Farmers; 31.8 per cent completed a part of or an entire high school course; 14.8 per cent completed a portion of a college course; 11.8 per cent completed a full college course; and 1.4 per cent received a master's degree.

41. These farm women desire education as follows: 43.1 per cent a complete course in an agricultural college; 19.2 per cent a complete liberal arts course; 6.6 per cent a two-year agricultural course; 4.8 per cent two years in a liberal arts college; 11.2 per cent desire only a high school course; and .5 per cent believe elementary school training is sufficient.

42. Farm papers were indicated as the most common source of new farm practices by 80.8 per cent of the farm women; 45.8 per cent indicated farm meetings; 29.8 per cent named the radio; and 25.4 per cent named farm bulletins.

43. Work that increases the family income is carried on by 72.1 per cent of the Master Farmers' wives. The average of such income is $413 to each home.

44. The 365 families of Master Farmers reported a total of 1265 children. The average for all families is 3.5 children. Fourteen or 3.8 per cent of the families have no children. Four families reared eleven or more children.

45. In families where the mother had an elementary education, 3.9 children were reared; where she had high school training or some college training the families averaged 3.1; and where she had a complete college education the average was 2.9.

46. Of the 1265 children, the ages of 1166 are given. Sixty or 5.1 per cent are under six years of age; 242 or 20.7 per cent are

between 6 and 14 years; 231 or 19.8 per cent are between 14 and 19 years; and 633 are over 19 years of age, the latter group containing 50 per cent.

47. A total of 87.3 per cent of the children over fourteen years of age are now in high school, have had some high school, or completed a high school course. Only 6.9 per cent discontinued school work before completing the course.
48. A college course was completed by 208 or 32.2 per cent of these children over 19 years of age; 128 or 20 per cent are now in college; and 93 or 14.6 per cent took only a part of a college course. A total of 66.8 per cent had some college training.
49. Seventy-seven or 37 per cent of the college graduates attended agricultural colleges. Thirty-eight per cent of those now in college or who stopped before completing the course registered in an agricultural college.
50. Of the 633 children over 19 years of age, the occupations of 526 are given. The vocation of agriculture received 291 or 55.2 per cent of these; 118 or 22.4 per cent entered the professions; and 51 or 10.1 per cent became office workers or salesmen. Smaller numbers entered other occupations.

2. The Typical Master Farmer

The typical Master Farmer of America, described in terms of averages or medians, was born in a farm home as it existed fifty-two years ago. The family in which he was reared consisted of a father and mother and six (5.8) children, of whom four engaged in farming, one entered the professions, and one engaged in some other occupation.

After receiving his elementary schooling in the one-room country school, he entered a high school or an academy for further education, but terminated his training at the end of the first year. He is not satisfied with the education he received, but believes that a farmer should have a complete college training in addition to elementary and high school training in a consolidated school.

He entered the vocation of farming because of his love for farm life and because as a boy he was trained in the work of the farm home. He started farming at the age of twenty-three with a capital of $400; however, at some later time, he inherited money or property to the extent of $1200. The buildings and live stock, together with the farm he operates, represent a value of $42,000. From this farm which he purchased in 1910, he derives a gross income of $11,500 and a net income of $3,200, this latter amount being a return of 8.7 per cent on the investment. Previous to purchasing the farm on which he has lived twenty-three years, the Master Farmer worked as a farm hand or operated rented farms for a period of six years.

The farm operated by the typical Master Farmer consists of 277 acres of which sixty-nine acres are rented. The fertility of this soil has been constantly increased by means of manures, lime, legumes, and commercial fertilizers until at present his crop returns from corn and wheat are more than ninety per cent higher than those of the average farmer and fifty per cent higher than yields produced on the same farm when he started farming. The crops raised consisting of corn, oats, wheat, and legumes are marketed by means of livestock, for he raises annually 116 hogs, a dairy herd consisting of forty-five head of tuberculin tested cattle, and a flock of poultry consisting of 337 birds. The growing of crops and the care of purebred livestock in addition to other interests of home and community demand a long working day which usually consists of twelve or more hours throughout the entire year.

At the age of fifty-two years, this typical Master Farmer is awake to the new things that education and science are bringing almost daily. He is acquiring more new farm practices now than he did in the period before he was thirty years of age. He is a member of the board of education in his local community, a leader in community affairs, a member of two farm coöperatives, a director of the local bank, and attends farm meetings twice a month.

Since the Master Farmer has had little agricultural training in schools, he attempts to add to his information by reading farm papers, books, and bulletins. The home library contains 175 volumes, 6.5 farm papers, four general magazines, two daily papers, and one religious paper. This library is supplemented by school and town libraries; but very often the books and the conditions are such that he receives little help from these sources. The Master Farmer believes that the farm problem can be solved through education that will lead farmers to coöperate and control surplus production.

The typical Master Farmer is a church member and attends church and Sunday School thirty-nine times a year. He attends one social affair each month, one motion picture each two months, and takes a yearly vacation of fourteen days.

3. THE TYPICAL MASTER FARMER'S WIFE

The typical Master Farmer's wife was born and reared in a farm home under conditions similar to those of her husband. She received the equivalent of two years of high school training and married a husband with similar educational attainment. However, if she were a young woman to-day, she would desire a complete college training as a preparation for the vocation of home-making in a farm home. She believes that the farm wife has an unusual need for a broad as well as a thorough training.

This farm woman received only a meager training in subjects of vital importance to the farm home, such as nutrition, cooking, home nursing, poultry raising, child and parent training, biology, home management, interior decoration, landscaping, vegetable and small fruit growing, Bible study, and sewing, but desires a very complete training along these lines. She is least interested in biology. She is in agreement with her husband that she received more new practices after the age of forty-five than she did before the age of thirty; however, she received a slightly larger number of new practices between the years of thirty and forty-five. Farm papers, home demonstration meetings, and farm bulletins in the order named bring her the most new ideas.

Church and Sunday School are attended by the typical Master Farmer's wife forty times a year. She not only attends church, but is a member of the local church of which her children (85 per cent) are also members. The Bible, the better books of fiction, the poetry of Guest and Longfellow, and books of biography and travel are most commonly read in the home.

Besides the regular duties of the home, time is found for attending social affairs and women's clubs each at least once a month, home demonstration meetings nine times a year, and motion pictures five times a year. Fourteen days a year are given to attendance at fairs or to vacations of various kinds. A hobby, usually flower gardening, takes some of her leisure time; but a still larger part of it is given to work which adds to the family income. The common source of this income is poultry raising from which an annual income of more than $400 is received.

The typical Master Farmer home has reared four (3.5) children, three of whom are now in high school or college, or have graduated from courses in these institutions. Two of the children have entered some phase of agriculture, one has entered the professions, and the remaining one has entered some other occupation.

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APPENDIX

HISTORY[1] OF THE MASTER FARMER MOVEMENT

Although agriculture has been the oldest as well as the most basic industry of the nation, it was not until in 1925 that any systematic action had been taken to honor those who have done really notable work in farming and who at the same time represent a high type of citizenship. It is true that for nearly a hundred years certain awards had been made in this country and Europe by kings, governments, railroads, or colleges to a few individuals for excellence in farming, but such action was only occasional. In 1925, Clifford V. Gregory, editor of *Prairie Farmer,* started the Master Farmer movement. He and his associates felt that a sound plan of bestowing public honor and recognition for excellence in agriculture was much needed and would do much for the morale of agriculture.

After careful selection according to a score-card, the first Master Farmer awards were given to twenty-three men at a banquet at Chicago, December 2, 1925. Leading business men and professional men were present on this occasion to do honor to the men chosen. In the following year several other standard farm papers made awards; and in 1927 awards were made in twenty-one states. By the year of 1929 more than 500 Master Farmers had been appointed in twenty-eight states by the following twelve farm papers.

Prairie Farmer, C. V. Gregory, Chicago, Ill.
The Pennsylvania Farmer, E. S. Bayard, Pittsburgh, Pa.
Kansas Farmer, T. A. McNeal, Topeka, Kansas.
Progressive Farmer, W. C. Lasseter, Birmingham, Ala.
Michigan Farmer, Bert Wermuth, Detroit, Michigan.
American Agriculturist, E. K. Eastman, New York, N. Y.
The Farmer, Dan A. Wallace, St. Paul, Minn.
Nebraska Farmer, S. R. McKelvie, Lincoln, Nebr.
Wallaces' Farmer, H. A. Wallace, Des Moines, Iowa.

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[1] The facts on the history of the movement are taken from *The Master Farmers of America,* as given in the bibliography (17, pp. 1-7).

The Ohio Farmer, Walter R. Lloyd, Cleveland, Ohio.
The Missouri Ruralist, John E. Case, St. Louis, Mo.
Oklahoma Farmer Stockman, Carl Williams, Oklahoma City, Okla.

The purpose of the Master Farmer movement is given as follows: "To dignify agriculture by recognizing and dramatizing its successes; to encourage farmers to take pride in their calling; to encourage farm boys and girls by showing them that outstanding success is possible in agriculture as in other occupations, not only the success that is measured in money, but what is more important the success that comes from an upright and useful life in family and community."

The purposes of the Master Farmer movement are summarized by Dr. Tait Butler, one of the editors of *Progressive Farmer:*

"First, the Master Farmer movement is a means by which farmers who have done really notable work in farming, and who represent a high type of citizenship are carefully selected in order that their work and character may be recognized and fittingly honored. . . . The Master Farmer movement seeks to find outstanding farmers and render honor to whom honor is due.

"Second, the Master Farmer movement has a set of high standards by which farming and farmers may be measured and judged. The standard Master Farmer score-card serves as a mark toward which all farmers may aim and by which all may measure their own efforts and success. Already many young and old farmers are using it as a goal toward which they are striving.

"Third, the Master Farmer movement is in effect a study of the methods, achievements, equipment, spirit and character by which success in farming is achieved. It is, therefore, a means of developing a better agriculture by carrying to all farmers in an effective manner the methods and equipment which have enabled other farmers to achieve outstanding success.

"Fourth, in the mind of the general public, there is an all too common idea that farming is not as efficiently conducted as merchandising, manufacturing, banking, and other industries. The Master Farmer movement shows to the general public the high degree of efficiency reached in modern agriculture. A challenge is offered to merchants, manufacturers, and bankers to show from their ranks an equal number of men who in efficiency, service, and character measure up to the high standard of the men selected as Master Farmers."

The Master Farmers have not been selected by guess or at random, but they are measured by a definite scientific score-card which gives due consideration to business methods, citizenship, home and community, home equipment, and education of children as well as farming methods. Similar methods are used by all the farm papers in choosing Master Farmers, but slightly different score-cards are employed.

THE QUESTIONNAIRE

SECTION I

THE MASTER FARMER

1. In the list below, indicate with a cross (x) your father's main occupation: Check but one item.
(R)------farmer, agriculturist
(X)------agent, office worker, salesman, realtor
(0) ------banker, financial agent
(1) ------contractor, building trades: carpenter, bricklayer, plumber, etc.
(2) ------government and public service
(3) ------merchant, dealer, proprietor
(4) ------professions: doctor, lawyer, dentist, teacher, preacher, etc.
(5) ------railroad employee
(6) ------mining (laborer)
(7) ------trades other than building (skilled mechanic, painting, decorator, etc.)
(8) ------manufacturer, public utilities
(1)-----(9) ------unskilled laborer

2. Place a cross (x) before the figure that indicates the number of children in your father's family.
(R)------one
(X)------two
(0) ------three
(1) ------four
(2) ------five
(3) ------six
(4) ------seven
(5) ------eight
(6) ------nine
(7) ------ten
(2)-----(8) ------eleven and over

3. Place in the blank space the number of your brothers and sisters that followed each of the following occupations:
(R)------farmer, agriculturist
(X)------agent, office worker, salesman, realtor
(0) ------banker, financial agent
(1) ------contractor, building trades: carpenter, bricklayer, plumber, etc.
(2) ------government and public service
(3) ------merchant, dealer, proprietor
(4) ------professions: doctor, lawyer, dentist, teacher, preacher, etc.

(5) ------railroad employee
(6) ------mining (laborer)
(7) ------trades other than building (unskilled mechanic, painting, decorator, etc.)
(8) ------manufacturer, public utilities
(3)-----(9) ------unskilled laborer

4. Place a cross (x) before the influences that led you most to choose farming for your vocation. Write in the blank space any not listed.
(R)------being reared on a farm
(X)------raising some crop or livestock with your father
(0) ------ill health
(1) ------a financial opportunity
(2) ------interest aroused in college
(3) ------interest aroused in high school
(4) ------best thing open at the time
(5) ------parents' wish
(6) ------love of farm life
(4)-----(7) --

5. Place a cross (x) before the farm organization of which you are a member. Place two crosses (xx) before those you have been president or secretary of.
(R)------the Farm bureau
(X)------the Grange
(0) ------the Farmers' Union
(1) --
----

6. Place a cross (x) before any of the following offices you have held:
(2) ------leader of club work
(3) ------school board member
(4) ------president of school board
(5) ------leader of community activities
(6) ------township officer
(7) ------county officer
(8) ------state senator
(5)(6)--(9) ------state representative
Write here the names of other important state offices you have held.

----

7. Place a cross (x) before each of the following organizations of which you are a member. Place two crosses (xx) before those of which you have been a director or officer.
If you are a member of any other coöperative organization list it below.
(R)------coöperative stock shipping association
(X)------coöperative grain elevator
(0) ------coöperative creamery
(1) ------coöperative cheese factory
(2) ------coöperative milk producers' association

(3) ------coöperative local store or buying association
(4) ------wholesale buying association
(5) ------coöperative fruit association
(6) ------coöperative egg association
(7) ---
(7)(8)--(8) ---

8. Place a cross (x) before any of the following of which you are a member. Place two crosses (xx) before any of which you have been a director or an officer.

(R)------insurance association
(X)------banking association
(0) ------state livestock association
(1) ------state horticultural association
(2) ------state fair association
(3) ------county fair association
(4) ------state breeders' association
(5) ------county breeders' association
Write below any similar organization to which you belong.
(6) ---
(9)(10)-(7) ---

9. Place a cross (x) before the figures that best indicate the size of your farm.

(R)------less than 30 acres
(X)------30-60 acres
(0) ------61-100 acres
(1) ------101-140 acres
(2) ------141-200 acres
(3) ------201-280 acres
(4) ------281-450 acres
(5) ------451-700 acres
(6) ------701-1000 acres
(7) ------1001-2000 acres
(8) ------2001-6000 acres
(11)----(9) ------more than 6000 acres
If more than 6000 give acres here---------------------------

10. If you rent all, or part, place a cross (x) before the group of figures that best indicates the land you rent.

(R)------30-60 acres
(X)------61-100 acres
(0) ------101-140 acres
(1) ------141-200 acres
(2) ------201-280 acres
(3) ------281-450 acres
(4) ------451-700 acres
(5) ------701-1000 acres
(6) ------1001-2000 acres

(7) ------2001-3000 acres
(8) ------3001-6000 acres
(12)----(9) --------------- acres

11. Place a cross (x) before the figures that represent your average yearly net income for the five years (1924-1928) as figured for a master farmer report. Check only one.

(R)------$1000-$2000
(X)------$2001-$3000
(0) ------$3001-$4000
(1) ------$4001-$5000
(2) ------$5001-$6000
(3) ------$6001-$7000
(4) ------$7001-$8000
(5) ------$8001-$10,000
(6) ------$10,001-$15,000
(7) ------$15,001-$20,000
(13)----(8) ------$20,001-$25,000
If above $25,000 give amount below.
Here------------------------

12. Place a cross (x) before the figures that indicate your average yearly gross income for the last five years (1924-1928). Income before expenses taken out.

(R)------less than $3000
(X)------$3000-$5000
(0) ------$5001-$7000
(1) ------$7001-$10,000
(2) ------$10,001-$15,000
(3) ------$15,001-$20,000
(4) ------$20,001-$25,000
(5) ------$25,001-$30,000
(6) ------$30,001-$40,000
(7) ------$40,001-$50,000
(14)----(8) ------$50,001 or more

13. Place a cross (x) before the value of money and property you had when you started farming. Check only one.

(R)------debts or nothing
(X)------less than $500
(0) ------$501-$1000
(1) ------$1001-$3000
(2) ------$3001-$6000
(3) ------$6001-$10,000
(4) ------$10,001 or more

14. Place a cross (x) before the figures that indicate your present farm investment. (Land, stock, buildings, equipment.)

(5) ------$10,000-$20,000
(6) ------$21,000-$30,000

(7) ------$31,000-$50,000
(8) ------$51,000-$80,000
(9) ------$81,000-$120,000
If above $120,000 place amount in the blank space below:
(15)----(10)----------------

15. Indicate with a cross (x) the date when you purchased most of your land.
(R)------before 1900
(X)------between 1900 and 1910
(0) ------between 1911 and 1917
(1) ------between 1918 and 1928
Indicate with a cross (x) the average price paid per acre for your land. Check only one.

16. (2) ------less than $25
(3) ------$26-$75
(4) ------$76-$125
(5) ------$126-$175
(6) ------$176-$225
(7) ------$226-$275
(8) ------$276-$325
(16)----(9) ------$326 or more
If above $376 place amount here----------------

17. Indicate with a cross (x) the group of figures that represents the present value of your land per acre (with buildings).
(R)------less than $25
(X)------$26-$75
(0) ------$76-$125
(1) ------$126-$175
(2) ------$176-$225
(3) ------$226-$275
(4) ------$276-$325
(5) ------$326-$375
(17)----(6) ------$376 or more
If above $376 write amount here----------------

18. Place a cross (x) before the one of the following that influenced you most to do farming in so thorough and unusual a manner as to be chosen a master farmer.
(R)------observing really good farmers
(X)------hearing some inspiring lecturer
(0) ------good articles in farm papers
(1) ------reading in books of actually successful farmers
(2) ------compelled by financial need to farm efficiently
(3) ------necessary to build up a run-down farm
(4) ------desire to do as big a job in farming as other leaders do in other lines
(5) ------college or high school training
(18)----(6) ------the desire to do well anything undertaken

19. Place a cross (x) before the figures that indicate the value of money and property inherited by yourself or your wife (used in your farm). Check only one.
(R)------none
(X)------less than $500
(0) ------$501-$1000
(1) ------$1001-$2000
(2) ------$2001-$3000
(3) ------$3001-$4000
(4) ------$4001-$6000
(5) ------$6001-$10,000
(6) ------$10,001-$15,000
(7) ------$15,001-$20,000
(8) ------$20,001-$30,000
(19)----(9) ------$30,001 and over

20. Place a cross (x) before the statement that tells the extent of your education in schools or colleges. Check only one.
(R)------less than eighth grade
(X)------finished eighth grade
(0) ------1-3 years in high school
(1) ------4 years in high school
(2) ------business course
(3) ------attended college 1-3 years
(4) ------graduated from college
(5) ------secured a master's degree
(20)----(6) --

21. Place a cross (x) before the statement that tells the amount of agriculture training you have had.
(R)------none
(X)------attended agriculture short courses. Number---------------
(0) ------one year at an agricultural college
(1) ------two years at agricultural college
(2) ------three years at agricultural college
(3) ------four years at agricultural college
(4) ------secured master of science degree
(5) ------if more check here

22. Place a cross (x) before the school that, in your opinion, best prepares a boy or girl for country life. Check only one.
(6) ------one-room country school
(7) ------one-room school and town high school
(21)----(8) ------consolidated grade and high school

22. Place a cross (x) before the period of life during which you adopted the greatest number of new farm practices. Check only one.
(R)------15-30 years of age
(X)------31-45 years of age
(0) ------46-60 years of age

23. If you taught school check below
(1) ------taught school. Years ------------------------------------

24. If you had six months of time to spend as you desired, place a cross (x) before any two of the following you would like best to do. Check two.
(2) ------take courses in art or music
(3) ------study along some college line
(4) ------study along agricultural lines
(5) ------research on some line of interest
(6) ------travel abroad
(7) ------travel in United States
(8) ------take a camping trip
(22)----(9) ------literary work (reading and writing)
If you prefer some other write it below:

----

25. If you wanted your son to be the kind of a farmer you would like to be, which of the following types of training would you want him to have? Check only one item. If you prefer write your own statement in the blank below.
(R)------eighth grade education
(X)------eighth grade and high school
(0) ------eighth grade and Smith-Hughes high school course
(1) ------eighth grade and high school and two years of college
(2) ------eighth grade and high school and four years of college
(3) ------eighth grade and high school and two-year agricultural course
(23)----(4) ------eighth grade and high school and a four-year agricultural course
(5) --
----

26. Applies to all raising cattle. Place a cross (x) in the space before breed of cattle you raise. If you raise more than one breed check under mixed.
(R)------Holstein
(X)------Guernsey
(0) ------Jersey
(1) ------Milking Shorthorn
(2) ------Brown Swiss
(3) ------Ayrshire
(4) ------Red Polled
(5) ------Angus
(6) ------Shorthorn (beef)
(7) ------Herefords
(8) ------mixed or several breeds

27. If you raise all or mostly purebred cattle check below.
(24)----(9) ------all or mostly purebreds

28. Place a cross (x) before the figures that indicate the average number of cattle you keep yearly.
(R)------less than 15

(X)------16-30
(0) ------31-60
(1) ------61-100
(2) ------101-200
(3) ------201-300
(4) ------301-400
If above 400 place the number in the blank space below.
(5) ---------------

29. If your cattle are tested for tuberculosis place a cross in the blank below:
(6) ------cattle are tuberculin tested

30. If cattle are sold for breeding purposes place a cross below:
(7) ------sold for breeding purposes

31. If you sell milk direct to the consumer place a cross (x) in the blank below.
(8) ------sell milk direct to consumer.

32. Fill in the number of cattle fed and sold for beef yearly
(25)----(9) ---------------

33. Applies to hog raisers. Place a cross (x) before the word that indicates the breed of hogs you raise. If more than one breed is raised check under mixed.
(R)------Poland Chinas
(X)------Duroc Jerseys
(0) ------Chester Whites
(1) ------Hampshires
(2) ------Spotted Poland Chinas
(3) ---
(4) ------mixed breed or several breeds

34. Place a cross (x) before the figure that indicates the average number of hogs you keep yearly.
(5) ------50 or less
(6) ------51-100
(7) ------101-200
(8) ------201-300
(26)----(9) ------301-500
If more than 500 place the number below:
(10) ---------------

35. Applies to poultry raisers.
Name of breed---
Place a cross before the average number of poultry kept per year.
(R)------none
(X)------less than 75
(0) ------76-150
(1) ------151-250
(2) ------251-350

(3) ------351-500
(4) ------501-1000
(5) ------1001-2000
If above 2000 write the number below:
(6) ----------------

36. If you receive special prices for eggs or for breeding stock place a cross (x) below.
(7) ------special prices
(27)----(8) ------I raise baby chicks
Number----------------

36. Applies to corn growers.
Place a cross (x) before the figures that indicate the average yield of corn per acre when you started farming on this farm. Check only one.
(R)------30 or less
(X)------31-40
(0) ------41-50
(1) ------51-60

37. Place a cross (x) before the figures that indicate your present average yield of corn in bushels per acre. Check only one.
(2) ------31-40
(3) ------41-50
(4) ------51-60
(5) ------61-70
(6) ------71-80
(7) ------81-90
(8) ------91-100
If you make a specialty of seed corn check below.
(28)----(9) ----------------

38. Applies to wheat growers.
Place a cross (x) before the figures that indicate the average yield of wheat in bushels per acre when you started on this farm. Check only one.
(R)------10-20
(X)------21-30
(0) ------31-40
(1) ------41-50
Indicate with a cross (x) the present average yield of wheat in bushels per acre. Check only one.
(2) ------20-30
(3) ------31-40
(4) ------41-50
(5) ------51-60
If you make a specialty of seed wheat check below.
(29)----(6) ----------------
Applies to cotton growers.
Pounds of cotton raised per acre when you started ---------------

Pounds of cotton raised per acre now ----------------
Applies to sheep raisers.
Sheep
Number---------------------- Breed--------------------
Number---------------------- Breed--------------------
Number of pure bred--
Applies to apple growers (if a main business)
Number of trees---------------
Bushels per year---------------
Peaches (if a main business)
Number of trees---------------
Bushels per year---------------
Cherries (if a main business)
Number of trees---------------
Crates per year---------------

39. Place a cross (x) before the figures that indicate the number of years that you worked as a farm hand.
(R)------none
(X)------1-2 years
(0) ------3-5 years
(1) ------6-10 years
(2) ------11 years or more

40. Place a cross (x) before the figures that indicate the number of years you operated a farm as a renter.
(3) ------none
(4) ------1-2 years
(5) ------3-5 years
(6) ------6-10 years
(7) ------11 years or more
If you are farming in partnership place a cross (x) in the blank space below:
(8) ------farm in partnership
(30)----(9) ------Check here if you rent all your land.

41. Place a cross (x) before any of the following that are true of your farm.
(R)------keep yearly invoice records
(X)------keep complete farm records
(0) ------have electricity from power line
(1) ------have independent light plant
(2) ------have complete farm shop and do my own repair
(3) ------have a fair shop and do half of my repair
(4) ------do little of my repair
(5) ------employ hired men
Number---------------
(6) ------employ tenants
Number---------------
(31)----(7) ------changed occupation to farming
Former occupation ------------------------------------

42. Place a cross (x) before the figures that indicate the number of years you have farmed.
(R)------less than ten
(X)------11-20 years
(0) ------21-30 years
(1) ------31-40 years
(2) ------41-50 years
(3) ------51-60 years

43. Place a cross (x) before the number of generations that this farm has been in your family.
(4) ------this generation only
(5) ------two generations
(6) ------three generations
(7) ------four generations
(8) ------five generations
(32)----(9) ------six generations or more

44. Place a cross (x) before the figures that indicate the number of years you have been a farm owner.
(R)------less than 10 years
(X)------10-20 years
(0) ------21-30 years
(1) ------31-40 years
(2) ------41-50 years
(3) ------51-60 years

45. Place a cross (x) before the figures that indicate your present age.
(4) ------less than 30 years
(5) ------31-40
(6) ------41-50
(7) ------51-60
(33)----(8) ------61 and over

46. Place a cross (x) before any of the following musical instruments played in your home.
(R)------piano
(X)------victrola
(0) ------radio
(1) ------violin or other stringed instruments
(2) ------cornet or other brass instruments
(3) ------clarinet or other reed instruments
(4) --

47. Place a cross (x) before the musical organizations you have taken part in. Place two crosses (xx) before the ones you have been leader of.
(5) ------quartet or octette
(6) ------church choir
(7) ------community chorus
(8) ------orchestra
(9) ------band
(34)---(10) --

48. Place in the blank space in front of each item the approximate number of times you attend during a year.
(R)------church or similar religious meetings
(X)------Sunday School, Christian Endeavor, etc.
(0) ------farm meetings
(1) ------coöperative meetings
(2) ------picnics, social affairs, etc.
(3) ------chautauqua, concerts, lectures
(4) ------motion pictures, theatres
(5) ------lodge meetings
(6) ------playing or singing in chorus, orchestra, or band
(7) ------days per year hunting or fishing
(8) ------days per year at fairs or agricultural shows
(35)----(9) ------days per year on other vacation

49. Place a cross (x) before the group of figures that is nearest the average number of hours spent daily throughout the year in farm work and farm chores.
(R)------6-8
(X)------8-9
(0) ------10
(1) ------11
(2) ------12
(3) ------13
(4) ------14
(5) ------15
(6) ------16
If your work is quite regular throughout the year check here.
(7) ------
If several months of the year are lax months check here.
(36)----(8) ------

50. Indicate with a cross (x) your religious preference.
(R)------Roman Catholic
(X)------Protestant
(0) ------Jewish
(1) ------no preference

51. If you are a member of the sect indicated above check below.
(2) ------church member

52. Place a cross (x) before the word that indicates your church attendance.
(3) ------regular
(4) ------occasional
(5) ------none

53. Place a cross (x) before the church that you attend.
(6) ------open country church
(7) ------town or village
(37)----(8) ------city above 5000 population

54. Place a cross (x) before the group that indicates the membership of your church.
(R)------50-100 members
(X)------101-200 members
(0) ------201-300 members
(1) ------301-400 members
(2) ------401-600 members
(3) ------601-800 members
(4) ------801 or more

55. Place a cross (x) before the group of words that indicates your work in the church or Sunday School.
(5) ------trustee, elder, deacon, or similar
(6) ------superintendent of Sunday School
(7) ------teacher of a Sunday School class
(8) ------leader of music, choir or orchestra
(38)----(9) --

Name the three abilities you think most important for the farmer to have.
(1) --
(2) --
(3) --

Many men have a hobby (or an avocation). Do you?---------------
If so, explain in the space below.

----

56. In the blank after each of the subjects listed below indicate from which source of readings you receive the most helpful information for your farm operations. (For example: if on "Quack grass" farmers' bulletins are the most important, place the figure one (1) in the blank space under "farmers' bulletins." If farm papers are second in importance place the figure two (2) in the blank space under "farm papers." Rank only first and second.

		Farmers' bulletins	Books and text-books	Farm papers
For example:	Quack grass -------------	----1-----	----------	----2-----
(R)	New and best varieties of seeds --	----------	----------	----------
(X)	Insect control, weed eradication, etc. ----	----------	----------	----------
(0)	Hogs: care, feeding, diseases, etc. --------	----------	----------	----------
(1)	Dairy cattle: care, feeding, diseases ----	----------	----------	----------
(2)	Beef cattle: care, feeding, diseases ----	----------	----------	----------
(3)	Better herd sires ------	----------	----------	----------
(4)	Poultry: care, feeding, diseases, etc. --------	----------	----------	----------
(5)	Sheep: feeding, care, diseases, etc. --------	----------	----------	----------
(6)	Soil fertility and legumes: alfalfa, etc.-	----------	----------	----------
(7)	Lime and commercial fertilizers ----------	----------	----------	----------
(8)	Materials and times for spraying ----------	----------	----------	----------
(39) (40) (41)--(9)	Coöperative marketing	----------	----------	----------

57. For these sources of information other than reading rank these same practices in the same manner as you ranked those above.

	Own experimentation and other farmers	Farm bureau meetings and county agent	Special days and short courses at Agricultural Colleges
(R) New and best varieties of seeds			
(X) Insect control, weed eradication, etc.			
(0) Hogs: care, feeding, diseases, etc.			
(1) Dairy cattle: care, feeding, diseases			
(2) Beef cattle: care, feeding, diseases			
(3) Better herd sires			
(4) Poultry: care, feeding, diseases, etc.			
(5) Sheep: feeding, care, diseases, etc.			
(6) Soil fertility and legumes: alfalfa, etc.			
(7) Lime and commercial fertilizers			
(8) Materials and times for spraying			
(42)(43)(44)--(9) Coöperative marketing			

58. Place two crosses (xx) before the crops or live stock from which you receive your main income. On crops give acres and yield.
Place one (x) before those of lesser importance you raise. Leave others blank.

(R)------dairying
(X)------horse breeding
(0) ------beef cattle
(1) ------hog raising
(2) ------poultry raising
(3) ------sheep raising

	acres	acre yield
(4) ------corn ----------------------------	----------	----------
(5) ------oats ----------------------------	----------	----------
(6) ------wheat ---------------------------	----------	----------
(7) ------cotton --------------------------	----------	----------
(8) ------potatoes ------------------------	----------	----------
(1) (2)--(9) ------peanuts ----------------	----------	----------
(R)------sweet potatoes -------------------	----------	----------
(X)------legumes --------------------------	----------	
(0) ------sugar cane ----------------------	----------	
(1) ------sugar beets ---------------------	----------	
(2) ------lespezeda -----------------------	----------	
(3) ------apples --------------------------	----------	
(4) ------peaches -------------------------	----------	
(5) ------pears ---------------------------	----------	
(6) ------grapes --------------------------	----------	
(7) ------cherries and berry crop ----------	----------	
(8) ------citrus fruits -------------------	----------	
(9) ------watermelons ---------------------	----------	
(10) -----tomatoes ------------------------	----------	
(3) (4)--(11) -----other truck crops --------	----------	

59. Place a cross (x) before any of the following you use in increasing soil fertility.

(R)------commercial fertilizers
(X)------use of lime
(0) ------use of barn manures
(1) ------use of green manures
(2) ------red clover
(3) ------alfalfa
(4) ------sweet clover
(5) ------soy beans
(6) ------lespezeda
(5)-----(7) --
Explain any other method of fertilization practiced by you.

60. Place a cross (x) before the two most important ways, in your opinion, of solving the farm problem.
(R)------by farmer owned coöperatives
(X)------by government legislation
(0) ------by better trained farmers
(1) ------by surplus control
(2) ------by corporation farming
(3) ------by the tariff
(4) ------by more economical production
(6)-----If you prefer write your own ideas below.

SECTION II

THE MASTER FARMER'S WIFE

(See directions on page 1)

Name --
City --
State --
61. In the list below, indicate with a cross (x) your father's main occupation. Check but one item.
(R)------farmer, agriculturist
(X)------agent, office worker, salesman, realtor
(0) ------banker, financial agent
(1) ------contractor, building trades: carpenter, bricklayer, plumber, etc.
(2) ------government and public service
(3) ------merchant, dealer, proprietor
(4) ------professions: doctor, lawyer, dentist, teacher, preacher, etc.
(5) ------railroad employee
(6) ------mining (laborer)
(7) ------trades other than building (skilled mechanic, painting, decorator, etc.)
(8) ------manufacturer, public utilities
(7)-----(9) ------unskilled laborer
62. Place a cross (x) before the statement that tells how much training you have had in schools and colleges.
(R)------less than eighth grade
(X)------finished eighth grade
(0) ------1-3 years of high school
(1) ------4 years of high school
(2) ------business course
(3) ------1-3 years of college
(4) ------graduated from college
(5) ------received the master's degree
63. If you taught school place a cross below.
(6) ------taught school

64. How many years----------------

If you were raised on a farm check here:

(8)-----(7) ------raised on a farm

65. Place a cross (x) before each of the following subjects you have had in high school, college, or by private lessons.

(R)------nutrition and cooking
(X)------home nursing
(0) ------music (vocal or instrumental)
(1) ------poultry raising
(2) ------child and parent training
(3) ------biology
(4) ------home management and accounts
(5) ------art and interior decoration
(6) ------landscaping
(7) ------vegetable and small fruit growing
(8) ------Bible study
(9)-----(9) ------sewing

66. Place a cross (x) before any of the following subjects in which, in your estimation, a farmer's wife should have training:

(R)------nutrition and cooking
(X)------home nursing
(0) ------music (vocal or instrumental)
(1) ------poultry raising
(2) ------child and parent training
(3) ------biology
(4) ------home management and accounts
(5) ------art and interior decoration
(6) ------landscaping
(7) ------vegetable and small fruit growing
(8) ------Bible study
(10)----(9) ------sewing

67. Place a cross (x) before the two most important of the following sources from which you receive your new household practices: Check two.

(R)------farm bulletins
(X)------home demonstration office and meetings
(0) ------the radio
(1) ------farm papers
(2) ------attendance at fairs

----

68. Place a cross (x) before the period of years in which you adopted the greatest number of new household practices. Check only one.

(3) ------15-30 years of age
(4) ------31-45 years of age
(11)----(5) ------46-60 years of age

69. Indicate with a cross (x) your religious preference.
(R)------Roman Catholic
(X)------Protestant
(0) ------Jewish
(1)------no preference

70. If you are a member of the sect indicated above place a cross (x) here.
(2) ------

71. Place a cross (x) before the word that indicates your church attendance:
(3) ------regular
(4) ------occasional
(5) ------none

72. Place a cross (x) before the statement that indicates what the church is doing in your community. Check one.
(6) ------the church does not help in the community
(7) ------the church plays a small part in the community
(8) ------the church is one of the most vital institutions morally and spiritually, in the community.

73. Fill in the number of your children over fourteen years of age who are members of a church----------------
(12)----(9)

74. Place in the blank space before each item the approximate number of times you attend yearly at each of the following:
(R)------W. C. T. U. meetings
(X)------Church and missionary meetings
(0) ------Sunday Schools and Endeavor, etc.
(1) ------picnics and social gatherings
(2) ------cards, dances, etc.
(3) ------women's clubs, etc.
(4) ------farm bureau, home demonstration, etc.
(5) ------motion pictures, theatres, etc.
(6) ------concerts, lectures, chautauquas
(7) ------lodges
(8) ------days per year at fairs and agricultural shows
(13)----(9) ------days per year on a real vacation

75. Place a cross (x) before the figures that indicate the approximate number of books in the home library.
(R)------less than fifty
(X)------51-150
(0) ------151-250
(1) ------251-350
(2) ------351-500
(3) ------more than 500

76. Place a cross (x) before the figures that indicate the number of monthly and weekly *farm* papers taken in the house.
(4) ------2 or less

(5) ------3-6
(6) ------7-10
(14)----(7) ------11 or more

77. Place a cross (x) before the figures that indicate the number of monthly and weekly papers *other* than farm papers taken in the home.
(R)------2 or less
(X)------3-6
(0) ------7-10

78. Place a cross (x) before the figures that indicate the number of daily papers taken in the home.
(1) ------1
(2) ------2
(3) ------3
(4) ------4 or more

79. If a religious paper is taken, check here.
(5) ------

80. Place a cross (x) before any of the sources from which you receive additional reading materials for the home.
(6) ------city library
(7) ------traveling library
(8) ------county library
(15)----(9) ------school library

81. Place a cross (x) before the figures that indicate the number of children in your family.
(R)------none
(X)------one
(0) ------two
(1) ------three
(2) ------four
(3) ------five
(4) ------six
(5) ------seven
(6) ------eight
(7) ------nine
(8) ------ten
(16)----(9) ------eleven or more

82. Place in the blank space the *figure* that tells the number of your children who are:
(R)------under 6 years of age
(X)------over 6 and under 14 years
(0) ------over 14 and under 19 years
(1) ------over 19 years

83. Place in the blank space the *figure* that tells the number of your children 14 years of age and over who:
(2) ------are now taking high school work
(3) ------stopped high school at the completion of 1-3 years of work
(4) ------have completed high school course

84. Place in the blank space the *figure* that tells the number of your children over 19 years who:

(5) ______are now taking college work
(6) ______stopped college on completion of 1-3 years college work
(7) ______graduated from college
(17)____(8) ______have received a master's degree or higher degree from university

85. Place in the blank space before each occupation the *figure* that tells the number of your children who entered that occupation

(R)______farmer, agriculturist or farmer's wife
(X)______agent, office worker, salesman, realtor
(0) ______banker, financial agent
(1) ______contractor, building trades: carpenter, bricklayer, plumber, etc.
(2) ______government and public service
(3) ______merchant, dealer, proprietor
(4) ______professions: doctor, lawyer, dentist, nurse, teacher, preacher, etc.
(5) ______railroad employee
(6) ______mining (laborer)
(7) ______trades, other than building (skilled mechanic, painting, decorator, etc.)
(8) ______manufacturer, public utilities
(18)____(9) ______unskilled laborer

86. Place in the blank space the *figure* that tells the number of your children who:

(R)______are now taking work in an agricultural college, or stopped at completion of 1-3 years
(X)______have graduated from agricultural college
(0) ______who received the master of science or a higher degree from an agricultural college

87. Place a cross (x) before any of the following sources from which you have received information on child or parent training:

(1) ______farm bureau lectures, meetings
(2) ______magazine articles
(3) ______books
(4) ______radio talks
(5) ______courses at college or university
(19)____(6) ______study club

88. If you had six months time to spend, as you desired, place a cross (x) before any two of the following you would like best to do. Check only two.

(R)______take courses in art or music
(X)______study along some college line
(0) ______study along agricultural lines
(1) ______research along some lines of interest

(2) ------travel abroad
(3) ------travel in the United States
(4) ------take a camping trip
(20)----(5) ------literary work (reading or writing)

If you prefer, write others below.

Name the three books which you have found most helpful in your own home, or most influential in your own life.

----

89. Place a cross (x) before any one of the following types of education that, in your opinion, would most nearly fit you, if you were a young woman today, to make farm life pleasant and meet the problems that face the modern farm home.

(R)------eighth grade education
(X)------graded school and high school
(0) ------graded school and Smith-Hughes home economics in high school
(1) ------graded school and high school and 2 years of college
(2) ------graded school and high school and 4 years of college
(3) ------graded school and high school and 2 years of agricultural college
(4) ------graded school and high school and 4 years at agricultural college
(5) --

----

90. (6) Name the duties outside of your household duties that you have done that have contributed to the family income (as poultry, etc.)

Name	Approximate income
(1) --------------------------	--------------------------
(2) --------------------------	--------------------------
(3) --------------------------	--------------------------

Give any special facts.

91. (7) Many women have a hobby (avocation). Do you have one? --------------- What is it?

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